



FLORIDA

HEALTH NOTES



VOL. 30

JANUARY, 1938

NO. 1

LIBRARY EDITION

PUBLISHED BY

**THE FLORIDA STATE BOARD OF HEALTH
JACKSONVILLE, FLA.**

STRAVER

TO ALL THOSE WHOSE INTEREST
AND GENEROUS SUPPORT HAVE
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FLORIDA HEALTH NOTES

Official Monthly Publication of the

STATE BOARD OF HEALTH

JACKSONVILLE, FLORIDA

Est. 1890

HON. FRED P. CONE.....Governor of Florida

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State Health Officer

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VOL. 30

JANUARY, 1938

No. 1

THE STATE BOARD OF HEALTH LIBRARY

ELIZABETH BOHNENBERGER, *Librarian*

The Library of the State Board of Health had its beginning in the 1890's under the watchful eye of Dr. J. Y. Porter, first State Health Officer of Florida. Yellow fever was the first concern of the Board in those early days, and this is reflected in the books and magazines which were purchased for the Library. Through the years some of this material has unfortunately been lost, but enough remains to form a most interesting historical collection on yellow fever.

After the resignation of Dr. Porter in 1917, interest in the Library at times flourished and at times waned; so, because a library to be and to grow must ever be diligently watched and frequently renewed, the collection was in 1932 essentially the same as in Dr. Porter's day.

In 1932, Dr. Henry Hanson, then State Health Officer, obtained a grant of money from the Rockefeller Foundation to assist in the re-establishment of the Library and the employment of a full-time Librarian. The books and bound magazines which had for some time been stored in an unused portion of the attic, were brought down and placed in order on the shelves in the small room which as far back as 1909 had been labeled "The Library." The venerable volumes, once more dusted and given a place in the alphabet, lent much dignity and considerable

beauty to the library shelves. They formed what was hopefully, even defensively called "a nucleus" of a good medical library.

A special library, however, such as the State Board of Health wished to maintain, must have the newest editions of books, and especially a large number of current periodicals. In the six years since 1932 the size and appearance of the Library has changed considerably. New books have been purchased, there is a reprint collection of several thousand items, many of the old files of periodicals have been brought up to date and bound, and the library now has a representative list of current periodicals on its shelves.

There have been many generous gifts to the Library. Complete files of periodicals, extending for a number of years, books given from the private libraries of doctors and nurses, valuable reports and reprints from other state health departments and from the United States Public Health Service have found their way to the library shelves in this manner.

Medical literature without indexes is almost valueless. The State Board of Health Library has been fortunate in obtaining the complete series of the *Index-Catalogue to the Surgeon General's Library*. This, with the *Index Medicus* and the *Quarterly Cumulative Index Medicus* makes avail-

able to research the resources not only of this Library but of older and larger collections, as it is possible to borrow material not on file in this Library.

In 1937, through the efforts of Dr. W. A. McPhaul, present State Health Officer, an annex to the old State Board of Health building was built and in this annex the Library now has larger quarters. New steel shelving provides double the space form-

erly available and leaves needed room for growth.

Each year the demand for library service has increased. The Library sends material to every part of the state, to nurses, physicians, dentists, and public health workers. The use of the Library has long since justified its existence, and its service as an instrument of health education is unquestioned.

NEW BOOKS IN THE LIBRARY

- Barclay—*The digestive tract*
 Becker—*Ten million Americans have it*
 Bleuler-Brilt—*Text-book of psychiatry*
 Boyd—*Preventive medicine*
 Boyd—*Pathology of internal diseases*
 Brahdy—*Trauma and disease*
 Bryan—*The art of public health nursing*
 Buckley—*Chronic rheumatic disease*
 Cannon—*Inwardly digest*
 Carter—*Fundamentals of electrocardiographic interpretation*
 Cowdry—*Histology*
 Crile—*Diseases peculiar to civilized man*
 Coghill—*Anatomy and problem of behavior*
 deRivas—*Parasitology*
 DuBois—*Basal metabolism*
 Exner—*The sexual side of marriage*
 Fishberg—*Heart failure*
 Fraeastoro—*Syphilis—or the French disease*
 Friedenwald—*Pathology of the eye*
 Gay—*Agents of disease and host resistance*
 Hegner—*College zoology*
 Hinton—*Syphilis and its treatment*
 Hooten—*Up from the ape*
 Hoskins—*Tides of life*
 Jelliffe-White—*Diseases of the nervous system*
 Jennings—*Genetics*
 Kahn—*Tissue immunity*
 Kellogg—*Fractures and dislocations*
 Kessler—*Accidental injuries*
 Kilduffe—*Clinical interpretation of blood examination*
 Kraeke—*Diseases of the blood and atlas of hematology*
 Knox—*Text-book of x-ray therapeutics*
 Landsteiner—*Specificity of serological reactions*
 Leverett—*Industrial health service*
 Levin—*Living along with heart disease*
 Lueros—*Essentials of chemistry for nurses*
 MacDonald—*Mental hygiene and the public health nurse*
 Mittler—*The lung*
 Moore—*Modern treatment of syphilis*
 Morse—*The unedical secretary*
 Musser—*Internal medicine*
 Mustard—*Introduction to public health*
 Parran—*Shadow on the land*
 Phelps—*Diagnosis and treatment of postural defects*
 Prinz—*Diseases of the mouth and their treatment*
 Roesler—*Clinical roentgenology of the cardiovascular system*
 Sigerist—*American medicine*
 Steindler—*Mechanics of normal and pathological locomotion in man*
 Vaughan—*The anemias*
 White—*The autonomic nervous system*
 Worcester—*Care of the aged, the dying and the dead*
 Willensky—*Osteomyelitis*
 Zinnser—*Laboratory guide in serum study*

One who, to all the heights of learning bred,

Read books and men, and practiced what he read.—STEPNEY

THE LIBRARY AND THE MEDICAL PROFESSION

EDWARD JELKS, M. D., *President*
Florida Medical Association, Inc.

Everyone who reads is using a library. It is not necessary that a man profess a creed or join in the activities of an organization to have a religion; for what a man does and how a man lives are much more truly his religion than what he professes. Similarly is it true that a denial of interest in a library or not reading within one's walls does not mean that a man has no library; because what he reads constitutes a major source of his knowledge. Some doctors find little time for reading and possibly at times only material which is put out by commercial companies. It makes very little difference how a physician receives his information, if it is correct; but the man who never studies in the atmosphere of a library room is missing an opportunity to gain some of the very finest things in his profession.

For, a library is a great storehouse containing the best thoughts of the best minds and the best information gathered together over a long period of time. Naturally nothing could be of greater practical, as well as inspirational value to a doctor than a storehouse which does contain the truths learned by scientific investigation and observation of the practical application of knowledge in the caring of sick people.

One of the most important services a library can render a doctor is accumulating and arranging material so that it is possible for a physician to learn in a very short period of time what is the newest idea about the problem which may be confronting him. It is usually impractical for a doctor to subscribe to a sufficient number of current periodicals to assure him that he may receive the needed knowledge when he is faced with a condition which is new.

Therefore, to have within the state some central place for the collection of information in the science and practice of medicine is of great assistance to the doctor in his effort to care for the sick in Florida.

Not only is it fortunate for the doctor that the State Board of Health and health officers have succeeded in accumulating a very creditable library, and after having obtained the proper financial aid, are running the Library in a manner which makes it of most benefit to the members of the medical profession, but also, it is fortunate that since this is a public service, every citizen has free access to its possessions. The State Board of Health Library is not the property of any group or individual. Everyone in Florida now has a place where he can go for the correct information on questions relative to public and individual health. When the citizens as a whole make use of this proper source of information concerning medical matters, they will have an understanding which will enable them to distinguish the true from the false, and consequently there will develop a greater appreciation of what organized medicine has accomplished and is accomplishing.

A public library is something to be enjoyed equally by all. One does not have to own the things in it to be helped. Like a beautiful sunset it is the property of anyone who will look and enjoy. No one man can absorb all or even cloud the clear truth, which is every man's merely for the asking.

A public health library is a great credit to Florida, a help to its citizens and a valuable institution for the doctors. With its aid the physician renders better service to those in need of medical attention.

THE LIBRARY AND THE PUBLIC HEALTH NURSE

RUTH E. METTINGER, R. N., *Director*
Bureau of Public Health Nursing

The past twenty years has seen public health nursing advancing rapidly; each year has brought new developments in improving the public health nursing service, and along with these modern improvements have come books—books on medicine, books on science, books on nursing—books that are constantly being published for the public health nurse who expects to grow with her work and to keep up with its rapid advancement. Yet the public health nurse feels the need of assistance in formulating her program and in keeping alive her desire for educational improvement; the list of even essential books is long and the question of finances always a problem. Consequently, the State Board of Health Library is placed at the disposal of those who wish to know the newest methods and the recent developments in public health work.

The State Board of Health Library is of infinite value to the public health nurse working alone in a county where there is no public library within three or four hundred miles. For through its library service she can secure the latest books without any charge except for postage, make use of important references, and obtain recent statistical reports. Since the public health nurse is supposed to have a fund of information regarding disease and health and also of the many changes that are being advocated for positive health, as well as negative, there is only one way to secure this information—that of reading the latest books.

One of the most valuable books to be published recently for public health workers is *Shadow on the Land* by Dr. Thomas Parran. Dr. Parran is Surgeon General of the United States Public Health Service, and through his efforts great strides are being taken to eradicate syphilis, so long a menace to our country. In

Dr. Parran's book the nurse will find the answers to many questions on the control of syphilis. Written in a language understood by the layman, the book reads like a story; and the history of syphilis as written by one long acquainted with this dread disease is enlightening as well as fascinating.

Another excellent contribution to health education is the new edition on *School Nursing*, written by Mary Ella Chayer. It contains valuable suggestions as to how the nurse can educate the parents in the importance of securing treatment of defects; discussions on the purpose of health appraising the school child; reasons why the nurse should make a schedule and stick to it; and illustrations which show the relationship of the nurse to the school administrative board. In a chapter on rural school nursing, Miss Chayer explains the improvements which have been made in rural conditions and points out the necessity of increasing the nursing service so that a county can be adequately covered.

Very little progress can be made in public health nursing without the interest and cooperation of the community which it serves, and the lay committees of the community are, without a doubt, the best mediums of interpreting the work of the nurse to the community. Since few nurses know how to organize lay committees, the new edition of *Board Members Manual*, published for board and committee members of the public health nursing services, will give helpful advice on organizing these committees and will also show how to bring about continued interest on the part of the volunteer worker.

More than once the public health nurse is confronted with a difficult situation which requires all the tact and knowledge she can muster in order to make adjustments. However,

she can cope with these difficult situations through a knowledge of mental hygiene. There has been a genuine need for a book on this subject, and the recent publication of McDonald's book on *Mental Hygiene and the Public Health Nurse* has proved of great assistance to the nurse troubled with problem cases.

The above mentioned books are but a few of the many valuable and interesting books that can be obtained for the use of the public health

nurse in furthering the advancement of her work. Others that would be worthy possessions are *Public Health Nursing* by Gardner, *The Manual of Public Health Nursing, Practices and Procedures*, and the *Art of Public Health Nursing* by Bryan. These books should be in the possession of all field nurses of public health nursing, and as a monthly aid, *Public Health Nursing*, the official organ of the N.O.P.H.N., would be a stimulant to their activities.

VOCATIONAL TOOLS

Two vocational pamphlets, "Nursing and How to Prepare for It" and "Nursing—A Profession for the College Graduate" are available to physicians who, in addition to their many other responsibilities, must often act as vocational advisors and confidants to their young patients.

Physicians more frequently, probably, than any other group of individuals, are consulted by young people who want to be nurses. Parents, too, who are concerned for their children's welfare, turn to their doctors for answers to such important questions as, "Is there a future in nursing for my child?"; "Will she make a good nurse?"; "What is the best nursing school for her to attend?"

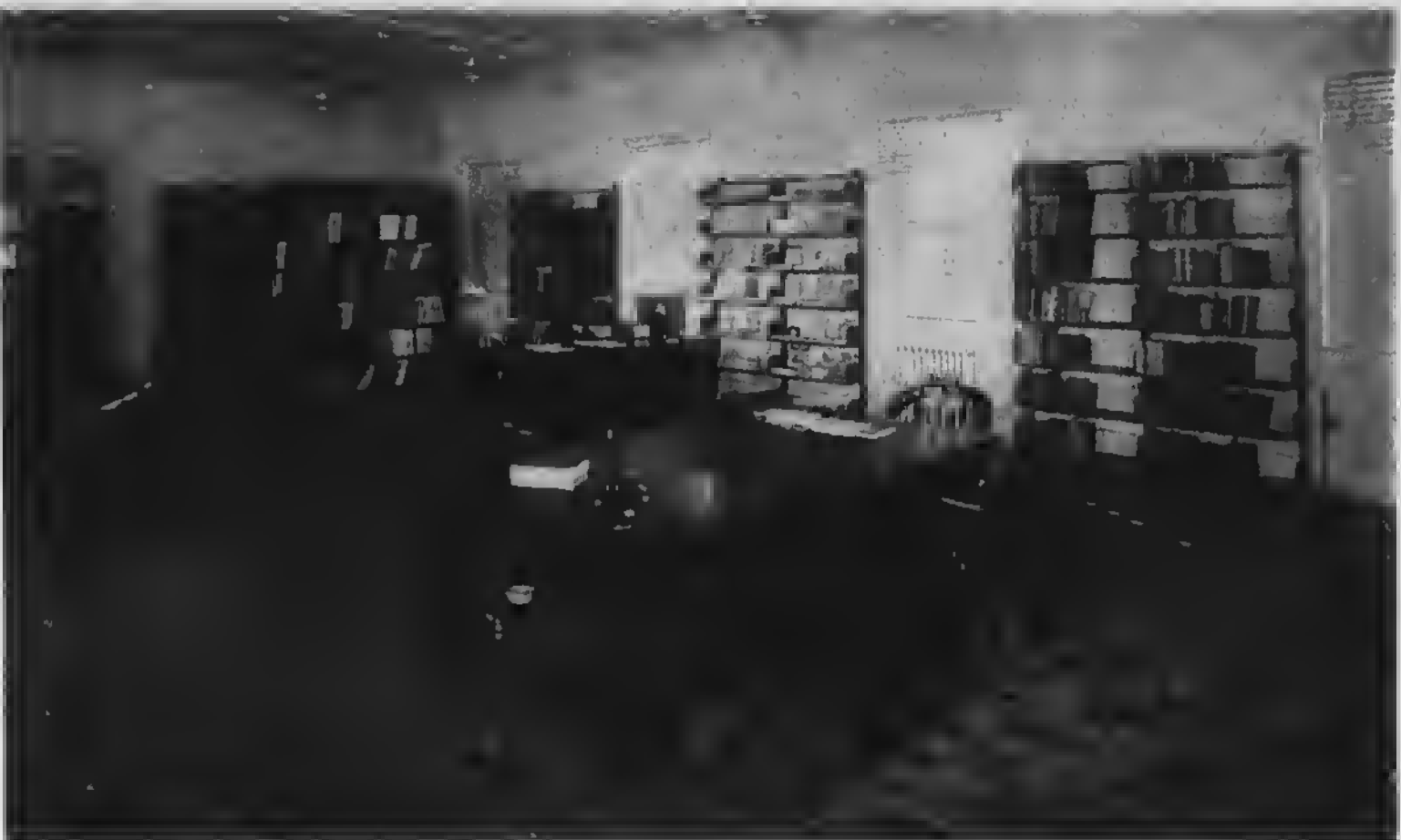
These two pamphlets outline the general admission requirements of nursing schools, provide criteria for choosing a nursing school, and discuss briefly the opportunities within the nursing profession.

The pamphlets have been prepared by the Nursing Information Bureau of the American Nurses' Association, which cooperates closely with the National League of Nursing Education and the National Organization for Public Health Nursing. Physicians who wish to have copies of them either for reference or to give to some of their interested young patients, may secure them, free of charge, from the Secretary, Florida State Nurses' Association, P. O. Box 1007, St. Augustine, Florida.

HOW TO USE THE LIBRARY

Anyone interested in public health may use the State Board of Health Library. Books, periodicals, and reprints are loaned anywhere in the state, and there is no charge for this library service, except the actual postage costs when the material has

to be mailed. Requests for special reference lists or for material on a particular subject are always given careful attention. Address all communications to the Library, State Board of Health, Jacksonville, Florida.





"PAPER COVERS"

"A great portion of the best writing and reading—literary, scientific, professional, miscellaneous—comes to us now, at stated intervals, in paper covers. The writer appears, as it were, in his shirt-sleeves."*

1938 SUBSCRIPTION LIST

<i>American heart journal</i>	<i>Journal of health and physical education</i>
<i>American journal of cancer</i>	<i>Journal of infectious diseases</i>
<i>American journal of diseases of children</i>	<i>Journal of laboratory and clinical medicine</i>
<i>American journal of hygiene</i>	<i>Journal of nervous and mental diseases</i>
<i>American journal of nursing</i>	<i>Journal of nutrition</i>
<i>American journal of obstetrics and gynecology</i>	<i>Journal of parasitology</i>
<i>American journal of the medical sciences</i>	<i>Journal of social hygiene</i>
<i>American journal of syphilis, gonorrhea, etc.</i>	<i>Journal of urology</i>
<i>American review of tuberculosis</i>	<i>Lancet</i>
<i>Archives of internal medicine</i>	<i>League of Nations—health bulletin</i>
<i>Archives of neurology and psychiatry</i>	<i>Medical clinica of North America</i>
<i>Archives of pathology</i>	<i>Medicine</i>
<i>Archives of surgery</i>	<i>Mental hygiene</i>
<i>Bulletin of hygiene</i>	<i>Milk plant monthly</i>
<i>Canadian public health journal</i>	<i>Modern hospital</i>
<i>Engineering news-record</i>	<i>Municipal sanitation</i>
<i>Hygeia</i>	<i>Physiological reviews</i>
<i>International journal of leprosy</i>	<i>Public health nursing</i>
<i>Journal Lancet</i>	<i>Quarterly cumulative index medicus</i>
<i>Journal of abnormal and social psychology</i>	<i>Radiology</i>
<i>Journal of biological chemistry</i>	<i>Sewage works journal</i>
<i>Journal of clinical investigation</i>	<i>Survey graphic</i>
	<i>Time</i>
	<i>Waterworks and sewerage</i>
	<i>Waterworks engineering</i>

FLORIDA MEDICAL ASSOCIATION

Through the kindness of the Florida Medical Association the State Board of Health Library receives the monthly publications of each state medical society.

"Now there has come a great change in our time over the form in which living thought presents itself. The first printed books,—the *incunabula*,—were inclosed in boards of solid oak, with brazen clasps and corners; the boards by and by were replaced by pasteboard covered with calf or sheep-skin; then cloth came in and took the place of leather; then the pasteboard was covered with paper instead of cloth; and at this day the quarterly, the monthly, the weekly periodical in its flimsy unsupported dress of paper, and the daily journal, naked as it came from the womb of the press, hold the larger part of the fresh reading we live upon. We must have the latest thought in its latest expression; the page must be newly turned like the morning bannock; the pamphlet must be newly opened like the ante-prandial oyster."*

*Oliver Wendell Holmes. Dedicatory Address at the opening of the Medical Library in Boston, December 3, 1873.

THE VALUE OF THE MEDICAL AND DENTAL LIBRARY TO DENTISTRY

BRYANT S. CARROLL, M. S. D., *Librarian*
Florida State Dental Society

There is a vast amount of medicine in dentistry and no less amount of dentistry in medicine, therefore, it is absurd to even try to separate the two. The library is the soul of both, for as Harvey Cushing has said, "The soul of an institution of learning resides in its library." And it was said by Siculus that one of the world's earliest and most famous libraries at Thebes in the time of Rameses II, bore the inscription "Dispensary of the Soul."

From time immemorial there have been ideas and improvements contributed to the world by one generation and passed on to the next by some form of writing. Since the people of today are not able to communicate with the forefathers of medicine and dentistry, it is a great privilege for them to have the opportunity of communicating with their forefathers through the recorded works which have been preserved and are maintained in the libraries.

The average busy practitioner engrossed with the care of his patients and faced with the serious problem

of earning a livelihood finds little time for reading; however, the equally busy but more ambitious man who attends dental meetings and occasionally prepares papers for presentation, has realized that he can afford the time to take advantage of the library services which furnish bibliographies, references, and abstracts on almost every subject pertaining to medicine and dentistry.

Many laymen do not realize that dentistry, both as a science and an art, is changing daily; that the best dental practice of today is as different from the best dental practice of ten years ago as is a 1937 aeroplane from its predecessor of 1927. They do, however, realize that one dentist is more abreast of the times than another, and therefore, more clever.

With changing science and changing art, the practitioner must himself be continuously changing his methods of diagnosis, his measures of therapy—in fact, all the techniques he employs. He cannot stand still; it is either retreat or forward march—and the library is ever present to assist in that march.

"It is clear that the State health department should have a library not only providing opportunities for study of special topics but also for reference. Books and bound journals should be accumulated over a period of years so that in the course of time the State health department would have library facilities which could be used not only by members of its own staff but by others who may want to investigate special problems bearing upon preventive medicine and public health. . . . Every local health department should provide some kind of a library for the use of its staff. If an interest is expressed in having a library and a plan is de-

veloped for acquiring books from time to time, I am confident that any local health department, even though it be a small one, can provide a number of books and current journals for its personnel which, if used in connection with their work, will be of immense value in a program of study. It seems to me that it would be legitimate to use the contingent fund of the budget within limitations for purchasing certain books or for subscribing to journals. These may be added to by special donations on the part of individuals in the community or local agencies such as federated and civic clubs and the local medical society."

*W. S. Leathers, M. D., Dean of the School of Medicine, Vanderbilt University. *The Need for Continued Study in Public Health Work*. 1931.

FLORIDA STATE DENTAL SOCIETY

In 1936 the Florida State Dental Association voted to place their book collection in the State Board of Health Library. A section of shelves is reserved for this purpose and the rules for borrowing these books are the same as apply to the State Board of Health Library proper. A list of the books follows:

A. M. A.	<i>New and non-official remedies, 1930-1931</i>
Asgis	<i>Outline of dental socio economics</i>
Blair and Ivy	<i>Essentials of oral surgery</i>
Blayney	<i>Dental pharmacology and therapeutics</i>
Cahn	<i>Tooth extraction</i>
Capon	<i>Porcelain dental restorations</i>
Clapp	<i>Profitable practice</i>
Colyer	<i>Dental Surgery and pathology</i>
Colyer	<i>Extraction of the teeth</i>
Crane	<i>Practicable root-canal technic</i>
Davis	<i>Operative dentistry</i>
Dunning-Davenport	<i>Dictionary of dental science and art</i>
Fones	<i>Preventive dentistry</i>
Greenfield	<i>Interpretation of dental radiographs</i>
Guerini	<i>Life and works of Giuseppangelo Fonzi</i>
Gwinn	<i>Textbook of exodontia</i>
Hanke	<i>Diet and dental health</i>
Hayes	<i>Clinical diagnosis of disease of the mouth</i>
Kanner	<i>Folklore of the teeth</i>
Kent	<i>Business side of dentistry</i>
Lischer	<i>Orthodontics</i>
Marshall	<i>Diseases of the teeth, diagnosis and treatment</i>
Mead	<i>Diseases of the mouth, 3rd edition, 4th edition</i>
Merritt	<i>Periodontal disease</i>
Merck & Company	<i>1907 index</i>
N. D. A.	<i>Transactions-5th, 1901-6th, 1902; 8th, 1905; 11th, 1908; 14th, 1910-16th, 1912</i>
Ottolengi	<i>Table talks on dentistry</i>
Peeso	<i>Crown and bridge work</i>
Perrine	<i>Doctor, build a better practice</i>
Posner	<i>Local anesthesia simplified</i>
Raper	<i>Preventive dentistry</i>
Rowland	<i>General pathology and principles of medicine</i>
Sears	<i>Full denture procedure</i>
Seldin	<i>Practical anesthesia for dental and oral surgery</i>
Stryker	<i>Courts and doctors</i>
Sturridge	<i>Dental electro-therapeutics</i>
Sturridge	<i>Periodontal disease and its treatment by ionic medication</i>
Thoma	<i>Teeth, diet and health</i>
Wallis	<i>Atlas of dental extractions</i>

He that takes up conclusions on the trust of authors . . . loses his labour, and does not know anything, but only believeth.—The Leviathan, HOBBS

REPORT OF THE NINTH ANNUAL MEETING OF THE FLORIDA PUBLIC HEALTH ASSOCIATION

EDWARD M. L'ENGLE, M. D., *Secretary-Treasurer*

The ninth annual meeting of the Florida Public Health Association was held in Tallahassee, December 6, 7, and 8, 1937. The program was interesting and the papers were practical. The attendance at the banquet was the largest ever recorded at a convention of the Association.

Dr. Stewart G. Thompson, who had been Secretary-Treasurer of the Association since its organization, submitted his resignation effective July 24, 1937. The Association has lost a most useful and active officer, whose place will be hard to fill.

The following officers were elected:

N. A. Upchurch, M. D., President	Lalla Mary Goggans, R. N., Second Vice-President
L. J. Graves, M. D., First Vice-President	E. M. L'Engle, M. D., Secretary-Treasurer

These officers with the following constitute the Board of Directors:

T. E. McNeel	H. D. Venters
H. D. Peters	Mary E. Herndon, R. N.
C. A. O'Quinn, M. D.	W. A. McPhaul, M. D.

Doctor William H. Pickett of Pensacola was selected as the representative on the Governing Council of the American Public Health Association.

Forty-one new members were enrolled and one old member reinstated, bringing the total membership of the Association to 228; of these, 100 are active members and 60 of the active members are members of the American Public Health Association, so that the Association is still in good standing.

The committees appointed by the President, Doctor McPhaul, are as follows:

Auditing Committee

G. W. Baltzell, *Chairman*
Major M. J. Mackler
L. J. Graves, M. D.

Membership Committee

Edward M. L'Engle, M. D., *Chairman*
Ford Thompson
J. W. McMurray, M. D.

Nominating Committee

Mrs. Vida Lester MacDonell,
Chairman
Joseph S. Spoto, M. D.
Fred H. Stutz
Mrs. May McCormick Pyncheon
Joseph W. Pinney

Committee on Local Entertainment

L. J. Graves, M. D., *Chairman*
Mark F. Boyd, M. D.
Mrs. Ford Thompson
Mrs. O. C. Parker, Sr.
Anna Tracey

Committee on Broadcasting

Mrs. W. P. Hollowell, *Chairman*
R. C. Moon
Fred Gehan, Jr.

Committee on Projecting Lantern

W. R. Hendrix, *Chairman*
Charles Roberts

Committee on Registration

Mrs. Charles Roberts, *Chairman*
Elsie Hyatt
Anna Emmons
Opal Miller

Committee on Reception

Mrs. W. J. Oven, *Chairman*
Mrs. Tom Moore
Mrs. L. L. Dozier
Mrs. B. A. Wilkinson
Mrs. F. T. Holland
Mrs. Audrey Hancock
Margaret McCaskill

REPORT OF THE NINTH ANNUAL MEETING OF THE FLORIDA PUBLIC HEALTH ASSOCIATION — CONTINUED

Committee on Exhibits

Julia Graves, R. N., *Chairman*
Cynthia Mabbette
Elizabeth Reed
Marion Cross

Committee on Publicity

George Gross, *Chairman*
M. B. Johnston
Mrs. C. W. Hunter

Committee on Golf

H. P. Ford, *Chairman*
C. C. Ashenhart
L. L. Dozier, M. D.

Committee on Entertainment of Lady Guests

Mrs. F. C. Moor, *Chairman*
Mrs. L. J. Graves
Mrs. S. F. Kilchen

Committee on Transportation

Ford Thompson, *Chairman*
W. R. Hendrix

MEMBERSHIP

New Members

William H. Ball, M. D., Jacksonville	T. Capers Jones, Tampa
N. A. Baltzell, M. D., Marianna	Margret McCaskill, Tallahassee
G. E. Barksdale, Perry	J. Huston McClane, Jacksonville
Mrs. Sarah M. Brey, Brooksville	Andrew J. McCrary, Pensacola
Katherine B. Canova, Green Cove Springs	Agnes McLean, DeFuniak Springs
Robert G. Carter, Orlando	Enid Mathison, Port St. Joe
R. L. Casey, Blountstown	Gladys Ethel Mayo, R. N., Bonifay
D. N. Cone, M. D., Jacksonville	J. B. Miller, Bartow
J. H. Cone, Jacksonville	Virginia B. Moran, Panama City
L. P. Davis, Jacksonville	A. W. Morrison, Miami
Lydia Allen DeVilbiss, M. D., Miami	Sara E. Napier, Chipley
Mrs. Ruth M. Elliott, Jasper	Karen L. Neilson, Blountstown
Paul H. Ficht, Clearwater	Mrs. C. W. Pease, Bartow
Mrs. Shula Freeman, Mitton	Thais Weir Pope, Quincy
Beena Garrett, Baker	Wm. P. Rice, M. D., Orlando
L. C. Gonzalez, M. D., Marianna	D. I. Sigman, Jacksonville
George Gross, Jacksonville	Dr. John J. Torres, Tampa
Laversa Hallman, Orlando	K. K. Waering, M. D., Quincy
H. H. Hallmark, Pensacola	J. W. Wakefield, Apalachicola
Mrs. Audrey Hancock, Tallahassee	C. H. Wolfe, Ocala
	Doris Woodward, R. N., Bushnell

Former Member Reinstated

Estelle Bryan, Tallahassee

FLORIDA PUBLIC HEALTH ASSOCIATION

EDWARD M. L'ENGLE, M. D., *Secretary-Treasurer*

CASH STATEMENT

NOVEMBER 13, 1936-JULY 24, 1937

RECEIPTS

Cash in Bank, November 13, 1936.....		\$ 91.34
Dues Collected for 1936 (Exhibit A).....	\$14.00	
Dues Collected for 1937 (Exhibit B).....	84.00	98.00
Rebate from American Public Health Association, 1936 dues \$1.00 each for 41 members and 50c dues for latter half of 1936 for 4 members (Exhibit A).....	43.00	
Additional Rebate from American Public Health Association, 1936 dues of \$1.00 for one member omitted from first rebate (Exhibit A).....	1.00	44.00
Exhibit space, C. V. Mosby Company, 1936 Annual Meeting.....		25.00
Total Cash to be accounted for.....		\$258.34

DISBURSEMENTS

Annual Dues of Florida Public Health Association, Inc., to American Public Health Association, 1936.....		\$10.00
Banquet Expense		
Banquet tickets, 4 guests.....	\$ 5.00	
Orchestra.....	38.50	43.50
Convention Expense		
Buttons.....	23.43	
Half-tone portrait and mails.....	4.60	
Microphones and loud speakers.....	20.00	
Programs.....	26.80	74.83
Refunds of 50c each to 3 members who paid F.P.H.A. dues of \$1.00 for 1936; half-year's dues returned by A.P.H.A. in their check of \$43.00 (Exhibit C).....		1.50
Supplies		
Membership Cards; Record and Registration Cards.....		13.00
Telephone		
Two long distance calls, Jacksonville to Savannah, Georgia.....	6.20	\$149.03
Balance in Bank, July 24, 1937.....		\$109.31

The present Secretary-Treasurer assumed his duties September 21, 1937. Between July 24 and September 21, 1937, there were no receipts or disbursements. The cash statement for the period beginning September 21, 1937, will form a part of the next annual report.

WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



BUREAUS AT JACKSONVILLE

Director

Laboratories	
Vital Statistics	E. M. L'Eggle, M.D.
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Public Health Nursing	Ruth E. Mattinger, R.N.
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Escambia County	W. H. Pickett, M.D.
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Hillsborough County	J. S. Soto, M.D.
Wakulla County	
Gulf-Colman-Franklin County	C. W. McDonald, M.D.
Highlands County	C. W. Pears, M. D. (Acting)
Duval County	W. P. Rice, M. D.

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Dist. 2. Jacksonville	Wm. H. Ball, M. D.
Dist. 3. Deale	D. C. Witt, M.D.
Dist. 4. Barlow	C. W. Pears, M.D.
Dist. 5. West Palm Beach	Leland H. Dams, M.D.

MALARIA RESEARCH

Mark F. Boyd, M. D., Tallahassee	Rockefeller Foundation
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ENTOMOLOGY

W. V. Kias, Ph. D., Orlando	U. S. Bureau Entomology
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KEY WEST
(MONROE CO. HEALTH
UNIT)



F L C D A

HEALTH NOTES

VENEREAL DISEASES

A Nine-Point Program for Syphilis Control

Gentlemen—Your Report!

The Dentist in Venereal Disease Control

The Public Health Nurse in the Control of Syphilis

Tuberculosis and Syphilis

Prevent Syphilitic Babies

Bookshelf

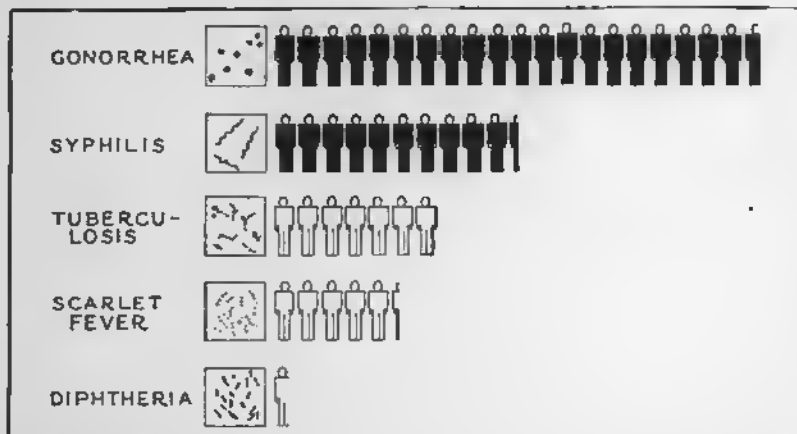
The State Board of Health and Venereal Disease Control

Syphilis and the Charlatan

Laboratory Notes

Recorded and Resident Deaths from Syphilis, by Color, by
Counties—Florida, 1936

Gonorrhea and Syphilis Lead Among Communicable Diseases



EACH SYMBOL REPRESENTS
50,000 NEW CASES EACH YEAR IN THE UNITED STATES

CHART BY . . . THE AMERICAN
SOCIAL HYGIENE ASSOCIATION

The serious prevalence of the two main venereal diseases, syphilis and gonorrhea, is but partially illustrated by this picturegraph. Figures only represent the new cases of infection which are recorded each year in the United States. Added to these, for a true understanding of the extent of the diseases, should be the uncounted thousands of cases which are undiscovered or are not under proper medical treatment. The American Social Hygiene Association, sponsors of National Social Hygiene Day in February, is appealing through its anti-syphilis committee, led by General John J. Pershing, for \$500,000 to continue its 1938 fight against syphilis and gonorrhea and the conditions which favor their spread. The association believes that Sweden's success in practically eliminating these diseases in twenty years can be duplicated in the United States.

FLORIDA HEALTH NOTES

Official Monthly Publication of the
STATE BOARD OF HEALTH

JACKSONVILLE, FLORIDA

Est. 1890

HON. FRED P. CONE Governor of Florida

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FEBRUARY, 1938

No. 2

A NINE-POINT PROGRAM FOR SYPHILIS CONTROL

R. A. VONDERLEHR, Assistant Surgeon General
U. S. Public Health Service

The major problem in syphilis control is no longer one of medical research. Doctors know its cause. They know how it spreads. They can diagnose it accurately and promptly even when it is hidden deep in the body with no external signs whatsoever. They have powerful drugs with which to treat it.

And, finally, they have a plan of attack. In fact, 61 years ago, Dr. Marion Sims, President of the American Medical Association, outlined the attack. In brief he said that to control syphilis we must think of it as a dangerous communicable disease. As such it should be subject to the same laws and regulations we use for other diseases. Our local boards of health should have the same power over syphilis that they have over smallpox or diphtheria or measles.

For 61 years, almost to a man, we have ignored this advice. We have let the moralist try to control syphilis instead of the physician. To find the results of this method we have only to look at the prevalence of the disease today.

There are three major steps in syphilis control. What is more these steps can be attained—have been attained in some countries, notably Denmark, Norway, Sweden, and Great Britain.

1. *Finding Syphilis.* Every early case of syphilis must be located, re-

ported, and its source ascertained. In addition, a follow-up must be made to find all contacts of the patient for possible infections. Each case of syphilis represents a probable small and individual epidemic.

2. *Treating Syphilis.* Treatment is the most practical means of control. It not only helps the patient himself, but the drugs quickly set up a chemical quarantine that prevents the spread of the infection. Enough money, drugs, and doctors must be secured to make adequate treatment possible for all cases; it is not in the public interest for treatment to be retarded or precluded by cost.

3. *Syphilis Education.* Education is needed for every group. Doctors and health officers must know and use modern scientific methods in treating syphilis. Citizens must be informed that syphilis allowed to progress is more expensive and more difficult to treat. They should understand the principles for individual and public protection.

No single plan of syphilis control can be set up arbitrarily for every part of the country. The following points have general application everywhere. Carried out they will enable any State or local health department to find syphilis, treat syphilis and begin a suitable education program.

1. Each State and locality must have a trained public health staff that knows how to deal with syphilis, under the supervision of a full-time venereal disease officer.

2. Good treatment facilities must be made available for all patients.

3. Every physician and clinic must have access to adequate diagnostic services.

4. Free drugs should be distributed to all physicians and clinics by the State for all cases.

5. Medical certificates including blood test should be required by law before marriage.

6. Every complete physical examination should include the blood test.

7. State laws should require reporting of all cases of syphilis, follow-up of delinquents, and finding of source of infections and contacts.

8. Physicians must have the opportunity to learn of new developments in diagnosis, treatment, and control.

9. A persistent public education program must be started, aimed particularly at the age group (15-35) which most frequently acquires syphilis.

These points are not idly written down as the thoughts of the moment. They have evolved after careful consideration of all existing, successful programs by a group of the outstanding authorities in present day syphilis control.

There is no denying that such a program as outlined will cost considerably more than we have been accustomed to spending for syphilis control. But measured against the cost of institutional care for syphilitics, against the cost in lives wasted, in sorrow and suffering, in unemployment and relief, the cost of adequate control sinks in significance. It is but a fraction of the present price of syphilis.

GENTLEMEN - - YOUR REPORT!

DAN N. CONE, M. D., *Director*
Bureau of Epidemiology

No health department, state or local, can effectively control syphilis, or any other disease, without a knowledge of when and where it is most prevalent. The health officer is prepared to draw a map of the state showing disease incidence in each community, which he can do only by compiling the reports sent to him by physicians throughout the state.

Counties and towns where the physicians and health officers inadvertently neglect to report all the notifiable diseases are placed at a disadvantage in the health records of the state.

Disease incidence is based on facts, and it is essential to the health department that they have a reliable morbidity report to guide their efforts.

The weekly morbidity report of the epidemiologist is compiled from the notifiable disease cards sent to him

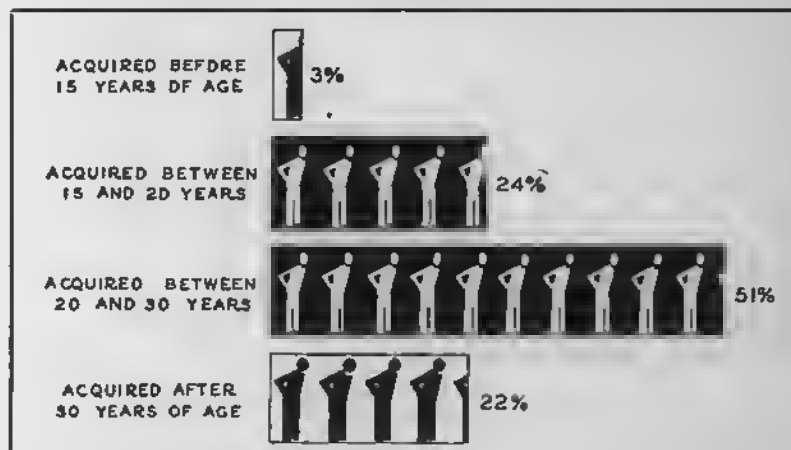
by the physicians and health officers; consequently, these cards must be filled out in detail to acquaint him with the facts. A card filled out as "gonorrhea" or "syphilis," is recorded as a primary acute case, whereas, the case may be in reality a recurrence or a relapse. If a disease carrier is specified, the card should indicate "carrier." In this way the health officer will be better assisted in his efforts to locate and eradicate those continuous health hazards—"carriers" and "retapsers."

The steady increase in the number of physicians who are reporting disease incidence indicates that they realize their cooperation to be a necessary prerequisite to a successful health administration. The weekly morbidity record is entirely dependent upon their continuous cooperation—and it is as nearly correct as they will make it.

"Examine for syphilis the family and all other contacts of the syphilis patient."
—Parran.

Syphilis the Enemy of Youth

3 OUT OF 4 SYPHILIS INFECTIONS ARE ACQUIRED BETWEEN 15 AND 30 YEARS OF AGE



EACH SYMBOL REPRESENTS 5%, OR 50,000 INFECTED PERSONS OF THE TOTAL ONE MILLION FRESH CASES OF SYPHILIS EACH YEAR IN THE UNITED STATES

CHART BY . . . THE AMERICAN SOCIAL HYGIENE ASSOCIATION

This chart shows the percentage of syphilis infections in four main age groups and explains why syphilis has been called the enemy of youth. About three-fourths of the approximately 1,000,000 new infections each year in this country are contracted by young men and women under 30 years of age. Health workers and physicians recognize the menace to young people of this disease and have adopted "Stamp Out Syphilis—Enemy of Youth" as the slogan for National Social Hygiene Day in February. The national anti-syphilis committee of the American Social Hygiene Association, under the leadership of General John J. Pershing, is raising \$500,000 to continue the association's 1938 efforts to stamp out syphilis and the conditions which favor its spread.

THE DENTIST IN VENEREAL DISEASE CONTROL

D. H. TURNER, D. D. S., *Field Director*
Bureau of Dental Health

Syphilis, the curse of all mankind, is a chronic and very infectious disease. It is characterized by certain structural and cutaneous changes, and is oftentimes to be found in the mucous membrane of the oral cavity. For this reason dentists are apt to notice this disease in its early stages, although to make a correct diagnosis is difficult because the patient frequently denies the possibility of an infection of this nature, and because the examination is limited to the oral cavity.

The more the dentists see of syphilis clinically the more they are convinced that they should be suspicious of all lesions in and about the mouth that persist, without healing, over a week.

Syphilis of the oral cavity may be contracted by drinking from contaminated glasses at public fountains, drug stores and eating places that are lax in their sterilization of dishes and glassware, also by using soiled towels in public places.

Syphilis in any of its three stages may affect the gums and the oral mucous membrane. The primary stage may occur on the gums, tongue or other parts of the mouth and often assume an unusual appearance. Ulcers of peculiar appearance and uncertain origin should always be regarded with suspicion. This condition should be thoroughly investigated and diagnosed, and immediate specific treatment given by a reliable physician.

The secondary stage may appear in the form of mucous patches in almost any part of the mouth, the most prevalent being the inner surface of the cheek, the edges of the tongue, and the angles of the mouth. The ulceration may extend and lead to excessive destruction of the tissue, followed on healing by adhesions of

contiguous parts and extensive scar contraction.

In the last, or third, stage, there is the tearing down of the bony structure of the oral cavity which finally leads to the perforation of the hard palate. The ulcerations are generally of a deep excavated character.

Hereditary syphilis presents several striking pictures such as crescentic notching of the upper anteriors, or peg-shaped teeth—delayed or accelerated eruption, abnormalities of shape, structure and number of teeth. The teeth most often affected by hereditary syphilis are the permanent upper anteriors, deciduous or baby teeth, and in some cases the lower anterior permanent teeth may be involved. This is explained on the basis that the permanent anteriors begin to undergo deminification during the last month of fetal life, and the canines and lower anteriors undergo this process in the first three or four months after birth. These characteristics of the teeth should call to mind that hereditary syphilis is essentially a dystrophic disease which exercises its morbid influences during intra-uterine life, and the first month after birth. The diagnostic features of the teeth so affected are of importance to the oral clinician and to those engaged in mouth hygiene activities.

Abnormality in the structure of the teeth is caused by congenital syphilis infection, but it must be remembered that a similar condition is caused by malnutrition. However, the intestinal keratin with chronic catarrh of the middle ear, in connection with Hutchinson teeth, is held to be a positive diagnostic sign of hereditary syphilis.

Gonorrheal inflammation of the oral cavity in adults is very rare. In children infection of the mouth

"Syphilis is all the more insidious because often those suffering from it are not aware that they have it."

with gonococcus may occur at birth, the lesions developing five to twelve days after labor.

A frank and intelligent discussion of this dreaded disease, syphilis, and the education of the masses, together with the closer cooperation of the

dentists and physicians will aid materially in combating this disease. Dentists have contributed much in this fight, by recognizing syphilis in its early stages, and pointing out the necessity of immediate treatment by a reputable physician.

THE PUBLIC HEALTH NURSE IN THE CONTROL OF SYPHILIS

RUTH E. METTINGER, R. N., *Director*
Bureau of Public Health Nursing

The entrance of the United States Public Health Service as an active contender in the war against syphilis has greatly influenced public health nursing. The utterances of this organization serve as a criterion for formulating public health opinions and policies; and the vast amount of publicity that has occurred as an outcome of Dr. Parran's extensive campaign to educate the public, has caused profound changes, not only in public thinking, but also in the attitude of public health nurses toward this great problem. They can fulfill their roles of nurse, teacher and interpreter, only by freeing their own minds of ancient taboos and bringing their knowledge of the disease, its cause, methods of prevention, and its treatment, up to date.

The first main factor in the control of syphilis is to locate all cases, especially those in the early stages of the disease. No one has a better opportunity to assist in this than the public health nurse. She may by means of objective or subjective symptoms, suspect that the disease is present and persuade the patient to consult a private physician or visit a clinic for diagnosis. Her knowledge of facilities for indigent cases must be complete and accurate, and her reference to a Wassermann test as a perfectly logical procedure, may convince the patient of its desirability. Also, many secret fears are confided to her, in her role as trusted advisor.

There must be a humanizing, individualizing and personalizing of the nurse's relations with syphilitics. Too often, her contacts with these unfortunate individuals in clinics or in homes have been so distasteful that she has unconsciously showed it in her attitude toward them. This has resulted in a smaller attendance at clinics and a lack of confidence as to the nurse's ability to deal with other health situations. The nurse must look upon the patients who present themselves at venereal disease clinics, not as a mass section of humanity to be treated as cogs in a machine, but as individuals, each with his own problems. The clinic nurse as well as the public health nurse must maintain an interest in these cases throughout the period of treatment, or, with the temporary cessation of pain, the patient will cease to attend the clinic until a recurrence of his former condition.

Another great factor in the control of syphilis is the education of the general public. The public health nurse is always a teacher, and there is no more effective teaching known than that which results from personal contact between teacher and pupil. Also, syphilis, at long last, is seeing "the light of day" as regards its eligibility as a topic for public discussion. In many instances, the local nurse will be called upon to enter into public discussions and she may inspire, assist or actively participate in programs which civic organiza-

"Teach syphilis. The facts about it must be known to all the people."

—Parran.

tions may sponsor for education of the lay public.

A maternity program presents perhaps one of the best opportunities of combating the disease. The insistence that it is the inalienable right of every unborn child to be born free from syphilis and that a negative Wassermann is its guarantee, will greatly reduce the number of stillbirths and congenital syphilis.

The public health nurse is partic-

ularly fitted to aid in the war against syphilis because of her many contacts with the public. She must remember that her own attitude influences that of her patients, and endeavor to divorce the moral issue from her conception of the disease. Syphilis is not a moral deviation to be prevented by scorn and cured by penitence, but is rather a great community health problem and its eradication will pay large dividends in the increased health and happiness of her people.

TUBERCULOSIS AND SYPHILIS

A. J. LOGIE, M. D., *Director*
Division of Tuberculosis

Tuberculosis and syphilis are the two most prevalent major infections of mankind. Both are communicable; in both, contacts must be examined; in both, the spread of infection must be prevented if possible. Their frequent coexistence in the same individual raises important problems, particularly of prognosis and treatment, for physicians expert in both fields. The relationship between the two diseases has as yet not been definitely explained. The opinion has been expressed that syphilis lowers a patient's resistance to tuberculosis. Some experts believe that the syphilitic individual who develops tuberculosis has a greater chance of survival than the person free of syphilis. They base this assumption upon the incidence of syphilis with the fibroid type of pulmonary tuberculosis. Other investigators disagree entirely and state the converse.

It appears that the problem is created not so much by the mutual interaction of tuberculosis and syphilis, but chiefly by tuberculosis and syphilis plus antisyphilitic treatment.

There is no specific treatment for tuberculosis but rest; for syphilis, on the other hand, there are powerful, specific remedies. Generally speaking, tuberculosis is more important and more dangerous than syphilis. While none of the methods of treatment used for tuberculosis will adversely affect syphilis, some of those used for syphilis may seriously modify the course of tuberculosis.

The patient with both diseases should receive antisyphilitic treatment on an individual rather than on a general basis. There is evidence that untreated syphilis affects unfavorably the course of pulmonary tuberculosis. However, the treatment should be mild, as intensive therapy may cause the tuberculosis to flare up in an acute manner with rapidly fatal results. Individuals who have active tuberculosis, as a rule cannot stand the usual antibiotic treatment. The more active the tuberculosis, the smaller should be the initial dose; the slower its increase, the less frequent the interval and the greater care and watchfulness required.

"Treat syphilis promptly. A few days' delay may mean failure of treatment."

—Parran.

PREVENT SYPHILITIC BABIES

F. V. CHAPPELL, M. D., *Director*
Bureau of Maternal and Child Health

The greatest hazard of syphilis in pregnancy is not to the mother, but to the unborn child. Every mother hopes for a normal healthy baby and if she is wise she will take the necessary steps to see that her child arrives in a normal healthy condition.

the first month of life and in the reduction of stillbirths.

Many physicians are not willing to risk offending their patients by suggesting a blood test for syphilis during pregnancy, but in a recent survey it was shown conclusively that the

Syphilis and the Unborn

FIVE OUT OF SIX BABIES
 OF UNTREATED SYPHILITIC
 MOTHERS ARE BORN DEAD
 OR DISEASED.....



CHART BY . . . THE AMERICAN
 SOCIAL HYGIENE ASSOCIATION

Over 60,000 babies are born every year with syphilis, in the United States. Those 60,000 babies born alive with syphilis are the most tragic of its victims. If they live at all, they will in all probability be blind, sickly or deformed and require the constant care of family, friends or charity.

In Florida every year there occurs an average of 1,500 stillbirths. Syphilis is one of the leading causes of these deaths, and it is the most easily preventable of all the causes. Great strides have been made during the last twenty-five years in reducing infant mortality during the first year of life, but practically none at all in the reduction of deaths during

women themselves favor such tests. Most maternity clinics now take Wassermann tests routinely on all patients and this practice must be made available to the patient of the private physician as well. It has been proven many times that over twice as many cases of syphilis will be discovered, if routine blood tests are made, than when a test is made simply because the disease is suspected. During pregnancy also, if a woman has syphilis, her blood test is more likely to be positive, and a small amount of treatment then, will do her far more good than the same amount later on.

Treatment of expectant mothers with syphilis started about midway

"Prevent the birth of syphilitic babies by requiring blood tests before marriage and early in each pregnancy."

—Parson.

of their pregnancy, or earlier if possible, will save at least 90% of their babies from being born with the disease. Women who expect to have children should have a blood test made as early as possible in their pregnancy.

As already stated, syphilis is the most easily preventable cause of stillbirths and of those weak, sickly,

deformed, and often blind infants. Adequate prenatal care of women who are pregnant, which will always include a blood test for syphilis, offers an excellent chance to make real progress in reducing not only the maternal deaths, but the stillbirths and those thousands born with syphilitic infection who will later become real burdens on society.

BOOKSHELF

The books listed may be borrowed from the
Florida State Board of Health Library

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THE STATE BOARD OF HEALTH AND VENEREAL DISEASE CONTROL

W. A. MCPHAUL, M. D.
State Health Officer

The control of venereal disease has long been a recognized problem among public health officials. Until very recently there have been at least two apparently insurmountable barriers in the way of attacking this problem.

The first and strongest barrier has been popular objection to straightforward thinking and talking on this subject. As Surgeon General Parran wrote, it was tacitly taken for granted that *nice* people did not talk about syphilis and that *nice* people did not have syphilis.

Within the last year this attitude of the general public has changed to a remarkable degree. Perhaps the change had already occurred before the strong light of the radio and the newspapers made it apparent; perhaps the public was merely waiting for a signal. The public health officials now have the full cooperation of communities everywhere. This has been indicated in Florida and the State will not lag in the nation-wide attack.

The second barrier to adequate control of venereal disease has been and still is an inadequate budget. To control disease which is so widespread necessarily will cost a great deal of money.

Syphilis is curable by drugs which are effective, but which are costly and frequently beyond the means of syphilis victims. The organization of clinics and the finding of disease carriers requires additional personnel and equipment. This fact has been recognized by public health officials everywhere, and a Bill is

now before Congress which if passed, will appropriate extensive sums of money for use in the control of venereal diseases.

The Florida State Board of Health intends to do everything in its power to cooperate with the Surgeon General in this campaign. The last session of the Florida Legislature had before it a Bill to increase the appropriation for purchase of neoarsphenamine by the State Board of Health. This Bill passed the Senate, but it did not go before the House. It is intended to again propose the Bill in the Legislature of 1939.

The State Board of Health has for a number of years furnished free neoarsphenamine to physicians for the treatment of indigent syphilitic patients. Even lacking the public interest now manifested in venereal diseases, there has never been sufficient neoarsphenamine. Now with the added requests which will follow as the public becomes more aware of the menace of these diseases, it will be absolutely necessary for the State Board of Health to fill requests for drugs for treatment by physicians.

The facts about syphilis will be made known to the people, cases of syphilis will be followed up and will be treated, every weapon that medical science has will be used to fight syphilis—but this still will not be enough. That which will do most toward the elimination of this disease will be an enlightened and aroused public opinion. Individual responsibility for a clean bill of health is the goal toward which we must aim.

"More than 10 per cent of all commitments to the state hospitals for the insane are due to general paresis which is syphilitic in origin. This means that about 15 per cent of the cost of running these institutions is

traceable to syphilis alone. All the beds occupied by these patients would be empty, were everything that could be done for the prevention and treatment of syphilis carried out."

—*Newsholme*

SYPHILIS AND THE CHARLATAN*

Cruelty and costliness are the two glaring evils of medical charlatanism. Its cruelty lies in the false security the quack gives the patient who lives in a fool's paradise and too late realizes that his malady has become chronic, or even progressed beyond cure. Often its cost is paid by the community at large which must meet the mounting charges laid upon the public by diseases whose ravages are aggravated, rather than lessened, by the pseudo healers.

This is especially true in the case of syphilis, against which a nationwide fight was intensified by the American Social Hygiene Association and other interested groups on National Social Hygiene Day, February 2, 1938. It is no exaggeration to say that the activities of quacks and charlatans are among the heaviest drags on serious efforts to stamp out the scourge of syphilis.

They thrive on syphilis patients because ignorance and false shame keep many sufferers from obtaining treatment from licensed physicians. The unscrupulous quack promises a speedy cure—anywhere from two to eight weeks—of a malady that really requires from eighteen months to two years' treatment.

The direct victims of these beasts of prey are the ignorant or credulous persons who have relied upon the charlatan's promises of cures. Deceived by the subsidence of symptoms, so characteristic of syphilis in some of its stages, the patients eagerly accept the quack's assurance that a cure has been effected and gladly pay a fee far greater than the cost of scientific and efficacious treatment. Secure in their belief that they are cured, these deluded persons unknowingly await the onset of some blighting disorder—heart disease, paralysis, blindness, insanity—that

ultimately proceeds from syphilis that has not had the proper treatment.

The indirect sufferers from the quacks' deceptions are their victims' families and friends as well as the public, any of whom may be exposed to infection from unsuspected sources. Even if those so exposed do not contract the disease, they may eventually be burdened with the care and expense of those afflicted. The community at large is penalized by the incalculable loss in lives and money due to the anti-social activities of these ruthless robbers.

The sign manual of the quack is his promise of a speedy cure, coupled with the inducement of cheap medicines for self-treatment. These remedies are not only ineffective, but may be positively harmful. Furthermore, the quack, in his eagerness to obtain a patient's money, will unblushingly pretend to find syphilis or gonorrhea in one who is entirely free from either disease.

Through the efforts of official and voluntary health agencies and the cooperation of practicing physicians and medical societies, legislation and the vigilance of government officials, much has been done in some cities to warn the public and to curb the activities of these unscrupulous men. Much remains to be done, however, for a recent study by the American Social Hygiene Association showed that hundreds of these quacks are still advertising their spurious services.

The most potent weapon against them is the widespread education of the public. Only when the public has been impressed with the shadiness of their methods, their unfounded claims, their utter lack of sci-

"Syphilis control is not the business of the public health officer alone nor yet of the physician or the social worker. It is a job for the whole people." —Parran.

*The American Social Hygiene Association.

tific competence, and the harm they do, will continuous action against them be supported and successful.

It is not difficult to detect the quacks. Their advertising in the less reputable class of newspapers and weeklies as well as in public toilets has made us familiar with them. Their patients are obtained through this advertising, through correspondence, and by personal solicitation.

Anyone who has reason to believe he has contracted syphilis or gonorrhea will do himself and his community a service by avoiding the quack and seeking treatment from a reputable doctor or clinic. Those who do not know a qualified physician can obtain the names of several good doctors by inquiring at their local health department or of their county medical society.

LABORATORY NOTES

PEARL GRIFFITH, *Bacteriologist in Charge*

The Tables below show the number of specimens submitted to the Laboratories during the year 1937, for examination for venereal diseases.

GONORRHEA

	Positive	Negative	Unsatisfactory	Total
January	466	2042	7	2515
February	392	1933	8	2333
March	495	2080	16	2591
April	537	1946	16	2499
May	420	1858	13	2291
June	395	1896	7	2298
July	417	1859	16	2292
August	439	1880	6	2325
September	294	1919	23	2236
October	296	1942	18	2256
November	304	1724	11	2039
December	275	1812	17	2104
	4730	22891	158	27779

SYPHILIS

	Positive	Negative	Partial	Unsatisfactory	Total
January	1521	14740	755	659	17675
February	1284	10818	734	432	13268
March	1192	11269	800	462	13723
April	1366	10817	669	463	13345
May	1564	11069	656	582	13871
June	1656	11780	559	807	14802
July	1821	11923	602	810	15156
August	1811	11835	665	829	15140
September	2182	14240	817	865	18104
October	2727	15914	678	883	20202
November	2722	14220	708	808	18458
December	2779	15322	654	750	19505
	22625	153977	8297	8350	193249

"Find syphilis. The obscure cases will never be found in lime except by the Wassermann dragnet."

—Farran

BUREAU OF VITAL STATISTICS

EDWARD M. L'ENGLE, M. D., *Director*Recorded and Resident Deaths from Syphilis, by Color, by Counties—
Florida, 1936

COUNTIES	RECORDED			RESIDENT		
	Total	White	Colored	Total	White	Colored
State	391	89	302	394	85	309
Alachua	5	1	4	6	1	5
Baker	0	0	0	0	0	0
Bay	1	0	1	1	0	1
Bradford	0	0	0	0	0	0
Brevard	1	0	1	1	0	1
Broward	0	0	0	0	0	0
Calhoun	0	0	0	0	0	0
Charlotte	0	0	0	0	0	0
Citrus	1	0	1	1	0	1
Clay	1	0	1	1	0	1
Collier	1	0	1	1	0	1
Columbia	5	2	3	3	1	2
Dade	57	13	44	55	11	44
DeSoto	0	0	0	0	0	0
Dixie	2	0	2	2	0	2
Duval	60	11	49	62	12	50
Escambia	9	5	4	9	5	4
Flagler	0	0	0	0	0	0
Franklin	2	1	1	2	1	1
Gadsden (Ex.)	3	0	3	3	0	3
State Hospital	86	22	64	86	22	64
Gilchrist	0	0	0	0	0	0
Glades	0	0	0	0	0	0
Gulf	0	0	0	0	0	0
Hamilton	0	0	0	0	0	0
Hardee	0	0	0	0	0	0
Hendry	1	0	1	1	0	1
Hernando	1	0	1	1	0	1
Highlands	2	1	1	1	0	1
Hillsboro	36	14	22	36	12	24
Holmes	0	0	0	0	0	0
Indian River	0	0	0	0	0	0
Jackson	2	0	2	2	0	2
Jefferson	1	0	1	1	0	1

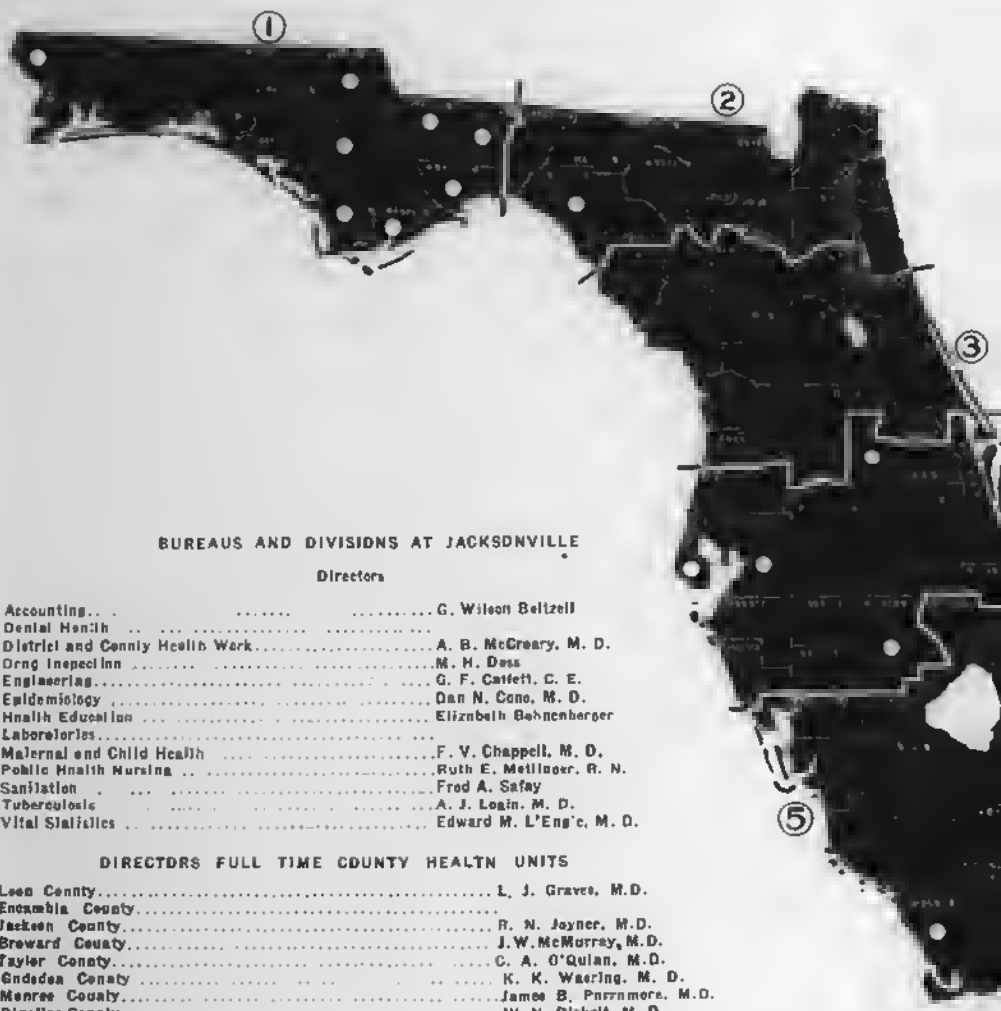
BUREAU OF VITAL STATISTICS

Recorded and Resident Deaths from Syphilis, by Color, by Counties—
Florida, 1936—(Continued)

COUNTIES	RECORDED			RESIDENT		
	Total	White	Colored	Total	White	Colored
Lafayette	0	0	0	0	0	0
Lake	13	2	11	13	2	11
Lee	3	0	3	3	0	3
Leon	2	0	2	2	0	2
Levy	0	0	0	0	0	0
Liberty	0	0	0	0	0	0
Madison	1	0	1	2	1	1
Manatee	4	1	3	5	1	4
Marion	4	1	3	3	1	2
Martin	0	0	0	0	0	0
Monroe	0	0	0	0	0	0
Nassau	0	0	0	0	0	0
Okaloosa	0	0	0	0	0	0
Okeechobee	2	0	2	2	0	2
Orange	17	3	14	16	3	13
Osceola	3	1	2	3	1	2
Palm Beach	11	1	10	10	0	10
Pasco	0	0	0	1	1	0
Pinellas	11	2	9	13	2	11
Polk	6	0	6	7	0	7
Putnam	6	4	2	6	4	2
St. Johns	3	1	2	4	1	3
St. Lucie	2	0	2	2	0	2
Santa Rosa	0	0	0	0	0	0
Sarasota	3	0	3	3	0	3
Seminole	6	0	6	6	0	6
Sumter	1	0	1	2	0	2
Suwannee	0	0	0	0	0	0
Taylor	4	1	3	4	1	3
Union	2	0	2	2	0	2
Volusia	7	1	6	7	1	6
Wakulla	0	0	0	0	0	0
Walton	0	0	0	0	0	0
Washington	3	1	2	3	1	2

WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



BUREAUS AND DIVISIONS AT JACKSONVILLE

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Accounting...	G. Wilson Beltz
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District and County Health Work.....	A. B. McCreary, M. D.
Drug Inspection	M. H. Doss
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Epidemiology	Dan N. Cono, M. D.
Health Education	Elizabeth Bahnenberger
Laboratories.....	
Maternal and Child Health	F. V. Chappell, M. D.
Public Health Nursing	Ruth E. Mettlinger, R. N.
Sanitation	Fred A. Safay
Tuberculosis	A. J. Logan, M. D.
Vital Statistics	Edward M. L'Engle, M. D.

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Dist. 2. Jacksonville	Wm. N. Ball, M. D.
Dist. 3. Deale	D. C. Witt, M.D.
Dist. 4. Bartow	C. W. Pense, M.D.
Dist. 5. West Palm Beach	Leland H. Dame, M.D.

MALARIA RESEARCH

Mark F. Boyd, M. D., Tallahassee.....	Rockefeller Foundation
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ENTOMOLOGY

W. V. Kleg, Ph. D., Orlando.....	U. S. Bureau Entomology
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KEY WEST
(MONROE CO. HEALTH
UNIT)



FLORIDA

HEALTH NOTES

DISTRICT AND COUNTY HEALTH WORK

Florida's Local Health Picture

The Control of Communicable Disease

An Adequate School Health Program

Tuberculosis Control

Hookworm Disease

Malaria Control in Local Health Work

The Importance of a County Health Unit to
a Safe Milk Supply

The Value of a Supervised Nursing Program

A Sustained Program in Sanitation

Vital Statistics and the County Health Department

The Ten Leading Causes of Death for the
Years 1917, 1926 and 1936

When all is said and done, one fact stands out as though spot-lighted. When the people are made aware of the benefits to be obtained from efficient local health service, there will be no more question of cost, of need, of political interference. Health service to every community will follow. *Health Education*, accurate, skillful, widespread, in our schools, our homes, our communities. This done, we will have complete local health service. President Franklin D. Roosevelt has aptly expressed the need for health education in the words which follow:

"Other than the indifference of local governments—there is no reason for tuberculosis to be twice as prevalent in some sections as in others; for deaths and illness from diphtheria to continue to occur when some municipalities have been able to stamp it out entirely; for twice as many babies to die each year in some cities as in those where a modern health program is in force; for the rate of decline of many preventable diseases and certain death rates to be higher in rural communities with no organized health service, than in urban communities where health service is available, or for those citizens of the lower economic rank to suffer a higher death rate from practically all causes."

W. A. MCPHAUL,
State Health Officer.

FLORIDA HEALTH NOTES

Official Monthly Publication of the

STATE BOARD OF HEALTH

JACKSONVILLE, FLORIDA

Est. 1890

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FLORIDA'S LOCAL HEALTH PICTURE

A. B. McCNEARY, A.B., M.D.

Director, Central Organization, District and County Health Work

The expansion and supervision of adequate local health service is the primary function of a state health department. The cooperative health unit supervised by the state health department and approved by the United States Public Health Service is recognized by medical and public health authorities as offering the most modern and efficient type of local health service. The standardization of health units according to modern methods assures the recognition of the unit and its services throughout the state and nation, just as the efficiency of medical schools and hospitals are based on the approval of the Council of Medical Education and Hospitals of the American Medical Association and the approval of this council means that the medical school or the hospital has met the requirements for equipment as well as efficiency and competency of personnel.

The necessity for special training of the personnel in administration and other phases of health work is recognized as a mandatory requisite of an efficiently operated health service. The actual control of the unit is vested in the local community through the medical society and the county commissioners with the State Board of Health acting purely in an advisory and supervisory capacity to assure qualified personnel and the application of uniformly accepted methods of public health procedure. The cooperative health unit is sup-

ported by funds from local sources, the State Board of Health, the United States Public Health Service and the Children's Bureau of the Department of Labor.

The first full-time unit in Florida was organized in Taylor County September 1st, 1930, and continued to operate until August 1933, when it was discontinued because of lack of funds. However, the county had learned to appreciate the value of the unit and it was reorganized in March 1936. Leon County 1931, Escambia County 1932, Jackson County 1935, were organized in the order named. 1936 saw the return of Taylor and the addition of Broward, Gadsden, Monroe, Hillsborough and Wakulla Counties and the Franklin-Gulf-Calhoun, tri-county health unit, with headquarters in Apalachicola. In 1937 the Orange County and the Highlands County Units were organized. Of these counties having the service only one was discontinued and it was re-instituted within two and one-half years.

After having had full-time health service a community is in much the same position as the individual who gives up his automobile and goes back to the ox cart; he soon realizes he is not getting anywhere fast, and so does the community. Heretofore, Florida has relied upon a loosely woven district scheme with the state divided into five districts, each district having a district health officer,

sanitation officer, public health nurse and a clerk, all having headquarters at some central point in the district. As these districts usually comprised from twelve to fifteen counties, embracing a very large area and more than 300,000 population, it is entirely obvious that such a set-up would be inadequate to administer health protection to such a large and populous area. Consequently, these organizations were little more than complaint shooters and pacifiers forming a buffer substance for the myriad, autonomous, part-time, so-called health set-ups. Naturally, there were no standards, and the regulations in many instances were dependent upon the mood of the community.

The qualifications of the local part-time health officer varied from the busy M. D. to the veterinarian, and the untrained layman. Such conditions exist today in some of the unorganized counties in Florida. It is difficult to understand the psychology that prompts a community to place the health of its children in the hands of a veterinarian, or an untrained layman. That the veterinarian has a definite place in public health in so far as the inspection of milk and meat are concerned, is not denied, but the untrained individual certainly has no right to a place in such a set-up.

For years local governmental bodies have discharged their obligations with regard to health by appropriating a meagre sum as a salary and naming a part-time officer who was either too busy to give the matter any attention or one who was wholly unqualified. But public health is a full-time job.

A medical society in a Florida county has addressed a communication to the county commissioners in their county in which they close with the following summary: "To summarize, we believe that this is the most important position in the county. The proper health officer can accomplish more than any individual doctor. Let us get a man, properly trained, conscientious, and stand by him. If you decide on this, we suggest that you consult with the State Board of Health. If you decide on an improperly trained man, let us quit making

a pretense, abolish the job and save the money."

It is obvious that the application of the sciences of medicine and engineering to the problems of life and health are not only humanitarian but of great economic value to the community.

It is difficult to appreciate why any community would subject its citizens year after year to the continued ravages of preventable diseases and the enormous losses of life, health, time and money.

The part-time set-up compares in efficiency with the cooperative full-time health service just as the volunteer bucket brigade compares with modern fire fighting equipment. Surveys made in many of the counties reveal that morbidity statistics are very misleading in counties without full-time service. Reporting of disease is so lax that it is practically useless.

One issue of the weekly morbidity report showed that 422 cases of communicable disease were reported in the fifteen counties having full-time health service, while a total of only 88 were reported by the 52 counties not having full-time service.

No one is misled for a moment into believing that there is actually more disease in full-time counties. It is obvious that disease is reported and some attempt made to control the spread in the organized counties, while the unorganized counties as a rule ignore disease and control measures.

A typical occurrence in an unorganized county is only two cases of diphtheria reported but four deaths from diphtheria for that period. In one county over a three-year period only one case of tuberculosis was reported while the death certificates showed that 47 persons died with the disease during that period. Authorities estimate ten active cases for every death from tuberculosis, which means that there were 470 active cases of tuberculosis unrecognized, unrestrained, and untreated. Another unorganized county reports five cases of typhoid fever with eleven deaths.

Prior to 1936 there were only three full-time county units. At the present time there are 15 counties

having full-time health service, and at least four which are ready to start operations as soon as the State Board of Health can make the necessary arrangements. Many other counties are evincing considerable interest through their various civic organizations. Such is the picture in Florida.

THE CONTROL OF COMMUNICABLE DISEASE

K. K. WAERING, M.D.

Director, Gadsden County Health Unit

The desire to control and prevent communicable disease is one of the main incentives that leads to the establishment of a full-time health service. No other function requires as much constant attention and supervision, nor benefits a community more than an effective program of communicable disease control.

A knowledge of how disease is spread assists understanding of the role of the county health unit in its control. In general, three elements are necessary to the spread of contagious disease. The first of these is an active case or carrier of any disease, which may be designated as an "active focus." The second element is a group of susceptible or unprotected individuals. The third is a way or means of contact between the first two, which may be direct or through the intermediation of organic or inorganic matter. When these three elements are present under favorable conditions, disease will spread with ease and to the extent of the number of individuals exposed.

Reasoning along these same lines, it is evident that to control disease effectively, we must know where the active focus exists. Ordinarily, physicians report whatever cases of communicable disease that occur in their practice. Without the presence of a local health department, however, their reports travel the long route to the central office and time elapses before much action can be taken to "neutralize" the active focus. Through a local health department, this valuable time is saved; a trained personnel goes into action immediately and further spread is prevented.

There are certain measures which,

With this in mind, and fully recognizing the inability of the district organization to cope with the situation, the State Board of Health through its Bureau of District and County Health Work, is directing every effort toward an extensive program of health education for the expansion of full-time cooperative health service in Florida.

when diligently applied, are relatively effective in "neutralizing" the active focus. Chief amongst these are isolation and quarantine. Isolation refers only to the patient or active case of the disease and indicates segregation of this individual from other members of the family. Isolation is an effective measure but breaks down unless carefully supervised by trained health personnel. Likewise, quarantine or segregation of persons who have been exposed to the patient, requires constant supervision. Only a locally situated health department can insure the successful maintenance of these measures. Because of its proximity, frequent home visits can be made and more time can be devoted to the actual instruction of those attending the sick individual. Furthermore, it is possible to make a more detailed study of the origin of the disease and trace all suspicious carriers. Such a study requires time and perseverance, but often is rewarded by the finding of a person who, unwittingly, has been spreading disease.

Reporting, isolation, and quarantine are regulatory measures directed at the first and third elements of our communicable disease cycle, the active focus and the immediate contacts. They are only effective when put into operation quickly and maintained constantly, and this can best be attained through locally-situated, trained personnel. It is only necessary to review the weekly bulletins of the United States Public Health Service to note the relative completeness and accuracy of communicable disease reporting insured by full-time health units, in contrast

to the discrepancies and incompleteness of other areas. This does not mean that there is "more" disease in counties possessing local health service, but rather that more active foci are brought to light; more of them are investigated, isolated, quarantined; and further spread abated much more frequently than would otherwise be the case.

However, far more can be accomplished in certain specific diseases through measures directed at the second element of the communicable disease cycle, the susceptible or unprotected individuals. In this instance, disease prevention rather than disease control is the objective. Through vaccination or immunization, individuals who are susceptible to typhoid fever, smallpox, diphtheria, can be rendered immune. This service can best be realized through systematic campaigns and regularly scheduled immunization clinics at

vantage points over a small area. A full-time health department is in a better position to carry such campaigns to a successful termination because of the active participation of lay-personnel in most of its programs. By this means, such campaigns are previously publicized and as a result the majority of susceptible individuals are reached.

Perhaps the greatest service that a full-time health department renders its community in the control of disease is education. The majority of county health units keep their public well informed as to the occurrence of disease within its borders and what measures to adopt for their safety. Information regarding disease is always forthcoming by word-of-mouth, pamphlets, and newspaper articles.

In conclusion, it can be said that a community blessed with a full-time health unit is not only a healthier community, but a wiser one.

AN ADEQUATE SCHOOL HEALTH PROGRAM

JAMES B. PARRAMORE, M.D.

Director, Monroe County Health Unit

An adequate school health program includes (1) those things which are done for the child to protect his health, (2) the teaching of health to the child so that he guards and improves his own health, (3) education of the parent in regard to child health, home and community hygiene.

School health service today is far removed from the routine medical inspection of years ago. It was the privilege of the writer to have been the first medical examiner of school children in Florida, and the difficulties which resulted from the part-time status of the position will never be forgotten. Physical examination of a child would be construed to be usurping the duties of the regular family physician. This condition prevailed then, and always will whenever a physician devotes only part of his time to public health activities and the rest to private practice.

If there is one field where it has been proved that the practicing physician has one place and the public health physician another, it is in the local health departments. A man

cannot do both. A physician who is devoting his full time to public health will find his work with the schools to be most satisfactory. The principal, teachers, parents, and practicing physicians realize that a full-time public health physician is fully interested in promoting good health among the children.

Under the first requirement of an adequate school health program—those things which are done for the child to protect his health, are routine physical examinations, immunization against smallpox, diphtheria, and typhoid fever. Also advisable is routine tuberculin testing of all children; and in Florida regular tests for intestinal parasites, chiefly hookworm, are necessary.

The second requirement—the teaching of health principles to the child—is accomplished through various means. The health officer, the nurse, and the sanitary officer frequently address the school on the importance of personal hygiene, proper home sanitation and prevention of communicable diseases. The use of

instructive pamphlets and moving pictures for health teaching are very desirable.

Briefly, the third requirement—education of the parent in regard to child health, home and community hygiene—includes all those health precepts taught the child in school, plus the necessity of proper school and community hygiene. For the school, enlightened parents should require proper seating, lighting and ventilation, correct water supply and

sewage disposal. For the community the parents should be informed of the importance of proper water supply and sanitation, adequate playgrounds.

The school is the place where our future citizens are trained. If through an adequate school health program, children are brought up to know the facts of personal, home and community hygiene, the continuous support of a larger health program may logically be expected.

TUBERCULOSIS CONTROL

L. J. GRAVES, M.D.

Director, Leon County Health Unit

The success of any undertaking depends upon the organized effort of people trained for that particular work. This applies to the field of public health and to tuberculosis control particularly. Since tuberculosis is a communicable disease which directly concerns the welfare of every member of the community, it is imperative that the fight to control it must be carried on by a trained personnel such as is found in the local health department.

To combat this disease successfully it must be attacked directly and indirectly from many angles. Organized health work is better prepared to do this than any other agency.

The direct attack is made on the open case of tuberculosis, and should be instituted as early as possible. This necessitates finding the cases at an early stage, and placing them in a sanatorium or under the care of a private physician, where proper treatment can be given. By means of tuberculin testing and x-raying of the positive reactors, we are enabled to find cases of tuberculosis long before they can be diagnosed by physical signs alone.

The local health department can do the tuberculin testing and make all necessary arrangements for the x-rays. Many of the victims of this disease are found among indigent, or semi-indigent people where social problems must be solved. This necessitates close cooperation of the health department with social welfare agen-

cies so that all possible adjustments may be made. The patient may not have relatives to care for him; he may need food, clothing, and other things. All of these must be looked after in order to give the patient the mental rest which is of first consideration. Because of limited bed capacity hospitalization is possible only for a small percent of the cases requiring it. Those who cannot be institutionalized usually have a far advanced stage of the disease; thus we are still confronted with a serious problem. Often a suitable room is not available in the home where the patient can be isolated. Where such conditions prevail we have found the Burr cottage extremely advantageous.

Once the patient is comfortably situated at home, the nurse should begin her course of instruction. It is her duty, first and at all times, to keep in touch with the physician in charge. The physician may give the necessary instructions as to rest, fresh air, diet, etc., but in many instances if the cases are not followed up by the trained nurse very little is done. It is the nurse's duty to see that the physician's orders are followed. The nurse must instruct the patient and the family in the proper disposal of the sputum, sterilization of the eating utensils, and other precautionary measures. Teaching implies not merely telling what to do, but explaining clearly and simply *how* and *why* it should be done. This requires a nurse who is tactful, sympathetic, one who is gifted with

teaching ability, and one who has had special training in public health work.

The indirect fight against tuberculosis includes practically every phase of public health work, because any measure that aids in building up and maintaining the general health of the individual acts as a preventive of the disease. Our attention is given primarily to those who have come in direct contact with active cases. All contacts are x-rayed with or without preliminary tuberculin testing. They are visited at stated intervals; and with the appearance of any signs or symptoms suggestive of active tuberculosis, they are urged to report to their family physician for examination. The sanitary inspector's work in the screening of the homes, the inspection of dairies, soda fountains, cafes and other food handling establishments, and the proper disposal of human excreta, plays an important role in the fight against tuberculosis.

The school furnishes an important field for our activities. A health program is carried on by the teachers in every grade. Some make posters, others enact plays, while in the higher grades essays on the subject of tu-

berculosis are written. The children are not only taught health habits, but are also encouraged to put them into practice.

Diseased tonsils, defective teeth, and malnutrition are problems found among the school children which can not be overlooked. The correction of these conditions must be considered an important factor in the prevention of tuberculosis. It is here that civic and other organizations come to our rescue by furnishing milk or hot lunches for the undernourished indigent children. They also supply funds for tonsil and dental clinics.

Health education may be said to be the controlling factor in our fight against tuberculosis. Thus it behooves the health department to make use of every available means and opportunity to solve the problem. In addition to the educational work in the schools, the press, the radio, talks to groups, literature and individual conferences furnish us means of reaching the public.

The fight against tuberculosis must be sympathetic; it must be continuous; and it must have a permanent organization of trained full-time health workers.

HOOKWORM DISEASE

C. A. O'QUINN, M.D.

Director, Taylor County Health Unit

The clinical symptoms produced by the infestation of hookworms is commonly called hookworm disease. *Necator americanus*, popularly called by the less technical name, hookworm, is a small comma-shaped intestinal parasite measuring on the average between one-quarter and one-half inch in length. Its distribution is so wide-spread that it is found in almost every country in the world.

Infestation is acquired by the penetration of the larva into the skin. The feet, and in many instances the hands, are the common portals of entry. The first symptom produced by infestation is an irritation at the local area, commonly called "ground itch." Once the adult worms reach the intestines they attach their hooks to the wall and nourish themselves by sucking the

blood of their host. It is this depletion of blood which causes the later and more serious symptoms which characterize hookworm disease. These individuals complain of weakness, listlessness, digestive upsets, and appear pale, undernourished, and undeveloped. As a result of these conditions, a person may be accused of being lazy when actually he is ill. In severe cases where there are a large number of worms in the bowel the skin is pasty yellow, the gums and lips very pale, and the abdomen swollen. These cases, especially children, often desire unusual things to eat. There are cases reported where dirt, chalk, paper, clay, and other inedible things have been ingested.

Hookworm disease is spread pri-

marily by filth. The feces of an infested person contaminates the soil with the ova of the worm. This produces a continuous source of reinfection which can only be satisfactorily eliminated through proper sanitation. If all homes had indoor toilets or sanitary pit privies, and everyone used them, the disease would not be the problem that it is today.

Diagnosis of hookworm disease is simple. This is determined by the examination of a stool specimen in a competent laboratory. An organized health department offers this service free of charge through the laboratories of the State Board of Health.

In controlling this disease health education is the most important factor. A complete understanding of the cause, mode of infestation, and

dangers of the disease is necessary for all the people exposed to hookworm before any effective results can be obtained. A well organized health department has the means and facilities to offer this service.

A campaign for the control of hookworm infestation has been carried on by the Taylor County Health Unit since October 1, 1937; over two thousand pamphlets were distributed; lectures were given; exhibits were held; and school visits were made. 1,661 specimens were collected, of which 961 were positive and 600 were negative, and 3,844 treatments, which included four to each person, were given. During the school year 1936-37 two films on hookworm disease were shown, and as a result of these educational campaigns 1,369 sanitary privies were built in Taylor County.

MALARIA CONTROL IN LOCAL HEALTH WORK

W. P. RICE, M.D.

Director, Orange County Health Unit

Malaria is a medical and sanitary problem with individual, community and international implications. No effective control measures for malaria can be evolved without the cooperation of agencies which have to do with sanitation, such as city or rural planning commissions, departments of public works, etc. Any malaria control work should be under the immediate supervision of the agency dealing with public health, that is, a full-time health unit.

In order to plan and carry out malaria control, a well organized health unit is essential. Such an organized division should be in close association with, or directly under, the officer in charge of public health work. A health officer is trained in malaria control methods and is familiar with the problems of mosquito biology. The success of malaria control will depend on the health officer's ability and his freedom to plan and carry out effective measures. The health officer in charge should be granted wide discretionary powers and he should have the authority to carry out well planned schemes which may involve either private or

public property rights. Such an officer should have authority to secure the cooperation of all public and private planning commissions, private or public bodies engaged in any operations which involve or may involve the formation of ponds, reservoirs, impounded water; with building streets, roads, real estate developments, drainage schemes. Only in this way will the health officer have an opportunity to inspect all plans which may involve or compel him to modify his scheme of malaria control.

No malaria control program can be efficiently carried out without thorough preliminary investigations and surveys. The county health unit with the cooperation of the State Board of Health has the facilities to supervise and carry out these preliminary investigations which include: first, the tabulation of all data available on clinical malaria from previous and present statistical records; second, the acquisition of all available meteorological data of the locality—rainfall, temperature, prevailing winds, and seasonal variations of same; third, preliminary in-

spection of local terrain for familiarization with the geography of the locality, especially regarding potential breeding places; fourth, splenic examinations of the school children under twelve years of age, with confirmatory blood smears taken of the children showing enlarged spleens; fifth, anopheline surveys for the purpose of ascertaining types of vectors in the community; sixth, house to house surveys made by the health department staff for further assistance in the formation of a cross-section of the malaria problem in the community.

Mature judgment and experience are required to form an opinion regarding the practicability of malaria control. Among the most salient points, one must consider the degree of prevailing endemicity, the necessity for permanent or temporary measures, and the nature and cause of the fluctuations to which the malaria is subject; the situation of the

classes affected, the density of the local vectors and the extensiveness of their productive areas; the practicability of drainage; the extent to which supplementary anti-larval measures must be employed; the probable cost of the work considered necessary; and the ability of the community to provide the funds, as well as the cost of maintenance subsequently required.

With malaria control in the county supervised by the county health department, purposeful control plans can be laid and carried out and in this way, the health officer will be held responsible and every taxpayer can be his judge.

If the present economic growth of Florida suffers no set-backs, the general increase in prosperity, coupled with purposeful malaria control work, should lead to the extinction of malaria as a public health problem at no distant period.

THE IMPORTANCE OF A COUNTY HEALTH UNIT TO A SAFE MILK SUPPLY

J. W. McMURRAY, M.D.

Director, Broward County Health Unit

Milk is our most highly important, universally used food. Unfortunately, it is susceptible to contamination and is an ideal medium for many disease-producing organisms. Most people accept milk as good milk, little thinking that in most instances good milk looks and tastes the same as contaminated milk which may produce sickness or death. Contaminated milk was formerly, and in many cases still is, responsible for more illness than any other food. The sanitation of the local milk supply is one of the most important phases of a county health department's service.

The adoption and strict enforcement of the United States Public Health Service Standard Milk Ordinance will go farther to safeguard the milk supply for public consumption in a county than any other measure. This ordinance is an almost perfect piece of legislation which evolved

from many years of study and revision by the best men in the country. This ordinance can be revised upward to meet special local conditions, but no other ordinance could possibly replace it in effectiveness.

Although the Standard Milk Ordinance has been adopted in many counties it has not always been properly enforced. Often untrained personnel have administered the law and either through lack of training or undue local influence have not been allowed to carry out their duties. With the full-time health department enforcing the Standard Milk Ordinance trained personnel carry out the duties of supervision impartially. When the Standard Milk Ordinance is adopted in a county, that county receives the benefit of expert advice from both state and federal specialists, and a government rating is given. Authority for enforcing the Standard

Milk Ordinance by local personnel is most effective when backed by official approval of the state and federal government.

The milk-borne epidemics of the past are familiar to everyone. In proportion to the amount consumed per capita, milk has proved much more dangerous from a public health point of view than water. Any county health unit can standardize its milk supply to the point where the milk, to all intents and purposes, is as safe as the water supply. When the citizens of a county know that their milk supply is being thoroughly supervised through tests of the milk itself, careful inspection of dairies and employees, and elimination of all disease among its dairy cattle, the health unit can rest assured that its worth is established with the people.

All other activities of a unit are

very deserving and important in themselves and each is necessary to a well rounded full-time county health unit, but in the case of milk control we have established precedents and a well beaten path that we can follow with great success. The general opinion is that the county health department to be completely successful and to be assured of the support of its people, should first of all adopt the Standard Milk Ordinance with such upward revision as may be required to cover the needs of the particular locality. This must be carried forward as rapidly as possible to the point where a government rating of 90% or better is obtained. When these results have been accomplished, whatever work the unit may see fit to undertake will be assured of general and generous support throughout the county.

THE VALUE OF A SUPERVISED NURSING PROGRAM

JOSEPH S. SPOTO, M.D., C.P.H.

Director Hillsborough County Health Unit

The public health nursing service which plays such an important part in the army of public health workers is comparable to the infantry of the army. It is a known fact that no battle can be won without a well trained infantry corps to fight at close range and take possession of new territory conquered. So in public health work much responsibility is placed on the nurse in the winning of public health battles, and achievement and efficiency cannot be realized unless the "infantry" of nurses is bannered under one leader to guide their motives and actions. It is recommended that a nursing staff of more than four should have a supervisor.

A supervisor to be of value to a nursing service must be endowed with certain essential qualities. She must be gifted with a pleasant personality, be tactful, impartial and diplomatic at all times. She must al-

ways be friendly. Leadership should be an outstanding characteristic. An appreciable amount of executive and administrative ability is mandatory. The supervising nurse must also have teaching ability in order to impart her knowledge to her staff. A supervisor who is a good organizer will not only benefit the nursing service, but this quality is essential in properly organizing the lay groups which are of such great assistance to a public health program.

There are certain essential acquired qualifications that a supervisor of nurses must have. A good educational background and a complete course in public health nursing are necessary prerequisites. A supervisor should have wide experience in the field of public health nursing, in order to effectively deal with the numerous and varied problems referred to her by the nursing staff.

Obviously, a supervisor who does

not meet the foregoing qualifications may be detrimental to the nursing staff. It is probably better to have an unsupervised nursing service than one under improper supervision.

The supervisor acts as the connecting link between her superior and the nursing staff. The interpretation to the field nurses of policies and procedures formulated by the administration is a direct responsibility of the supervisor. Every effort should be made by the supervisor to obtain uniformity of action and nursing procedure.

A well qualified supervisor of nurses is of inestimable value in the preparation and conduct of staff conferences. These conferences should be held periodically by all nursing staffs. Here the supervisor's expert knowledge and experience become imperative, since the staff will be guided by her decisions and advice. It is advisable not only to discuss immediate problems pertaining to the nursing service, but also to supplement conferences with a well planned study program, which offers an excellent means of staff education.

In making home visits with the field nurses, the supervisor can be of great assistance in solving problems peculiar to the family. No home visits with the field nurses should be made for the sole purpose of finding fault with the nurse, but primarily to improve nursing procedures and technique. This also offers an opportunity to bring out the best qualities of the nurse and subdue whatever shortcomings she may have. The field nurse should be constantly encouraged in her work, not only at the time of home visits, but whenever an opportunity arises.

Well kept records are important

to any organization, and usually take constant supervision in order to insure completeness and accuracy. The evaluation of records as to the adequacy of nursing care, proper spacing of visits, adequate follow-up work, is an important duty of the supervisor.

Another important responsibility of the supervisor is the preparation of the new nurse for the service. It would be an injustice to everyone concerned to place a new nurse without attempting to acquaint her with the formulated policies and procedures of the organization. The time consumed in this venture will be more than repaid in maintaining standards of service.

The objective of supervision in public health nursing was admirably expressed by Marion Howell, when she said, "The improvement of the nursing service by promoting the professional and personal growth of the nurse is the primary purpose of all supervision."

No matter how well a nursing service is supervised and organized, if the community is to realize utmost results, it is imperative that such a service be embodied within a complete health organization. The nurse in the field will encounter many medical and sanitation problems requiring the expert knowledge of other branches of public health. Unless there is available the mutual cooperation and assistance of the sanitarian, sanitary engineer, dental hygienist, and physician, the value of a nursing program will be greatly minimized. The duties and functions of a complete health organization should be so closely interwoven that no one could detect where one division of the service begins and the other terminates.

"In the past, public health nursing was frequently developed as a separate entity. Nursing leaders now recognize that it should be developed as an integral part of the entire community public health program. The successful public health nurse, who has been adequately prepared for her job, is an ideal interpreter of medical, sanitary, and social procedures."

PEARL McIVER, R. N.—*American Journal of Public Health*, Vol. 25, No. 5, May, 1935.

A SUSTAINED PROGRAM IN SANITATION

WM. H. PICKETT, M.D., C.P.H.

Director, Pinellas County Health Unit

A sustained sanitary program in any city or county in Florida should be one established to meet the exact needs of the population to be served.

A very careful, detailed sanitary survey of the entire area is necessary in the very beginning before it is possible to know what kind of program should be sustained. The population and area should be studied as to the following:

1. Racial characteristics and peculiarities (sanitary).
2. Occupations and associated health hazards.
3. Housing and especially over-crowding.
4. Geological formation, particularly as concerns individual sewage disposal systems and water tables.
5. Engineering studies as to disposal or treatment of standing water as concerns the breeding of mosquitoes and contamination of water supplies.
6. Most practical, cheapest and best suited disposal of sewage and garbage for the town and rural population.
7. Screening of homes against insects.
8. Extent of health education (how to live) at time of study.
9. Sanitary condition of public and semi-public water supplies.
10. Sanitation of milk and milk products as to dairy's cattle, handlers, equipment, production and delivery.
11. Sanitation of food and drink handlers, food and drink establishments and utensils.
12. Inspection of animals to be slaughtered for market.
13. Sanitation of slaughter houses, meat markets and methods.
14. Inspection of carcasses before offering for sale.
15. Sanitation of homes, places of business and environments.
16. Rat proofing.
17. Shellfish inspection.
18. A knowledge of the prevalence of preventable disease in the area and the direct or indirect cause of these diseases.

Once the sanitary officer has knowledge and a record of the facts gleaned from a study of his area as to the above (and possibly omitted kindred facts) he is able with the teamwork of his director and other members of the health unit to establish permanently a sustained pro-

gram of service that will yield lowered pre-natal, maternal, infant, pre-school and adult morbidity and mortality rates.

The program that will meet acid tests and be retained by appropriating bodies must be fact-finding, practical, disease-preventing and economical.

The pocketbooks of the people must be respected, and a sustained program of the sanitarian can only hope to carry on the most vitally important activities in the area until such time as funds and personnel are available to carry on a full and complete program.

It always follows through as a natural course of events that the work of one good, well-trained sanitarian, working in an area where four or many more are needed, does educate the "powers that be."

A sustained sanitary program in the average Florida county, including a few small towns, will, for several years at least, be served by only one sanitarian. It is, therefore, all the more necessary that he have a knowledge (obtained only through a survey) of his people and their needs, in order that he devote his time where it will yield the greatest benefit to the majority.

The average county in Florida has high incidence in the following: Maternal and infant deaths; tuberculosis; malaria; hookworm infection; dengue fever; typhoid fever; diarrhea and enteritis.

We can at once correlate problems in sanitation with incidence in each of the above. But some counties have lower incidence of these than others, and possibly other diseases not mentioned above may be of greater economic importance. A survey and study of death statistics, and, when they are more reliable, of morbidity statistics, will help point the way.

VITAL STATISTICS AND THE COUNTY HEALTH DEPARTMENT

R. N. JOYNER, M.D.

Director, Jackson County Health Unit

Vital statistics may be defined as data relating to the life histories of communities or peoples. They relate to those events which have to do with the origin, continuation, and termination of the lives of the individuals. They ordinarily include an enumeration and classification of population, births, marriages, divorces, deaths, the occurrence of disease, and the conditions which bring about, attend, and follow these events.

Vital statistics are not a new idea. This development into their present form is however, of recent origin. The Egyptians, Greeks, and Romans had more or less accurate methods of census enumeration. The Romans required that all births and deaths be registered. Practically every race of people has had some means of tabulating the number of births and deaths occurring among their own ranks. Many local communities formerly required that such information be obtained, but not until recent years has the comparison, classification, and tabulation of these data been practiced on a nation-wide scale. In their present form; vital statistics furnish an abundance of information, otherwise unobtainable and otherwise completely lost. They have become an essential part of the life of every well organized and well conducted community. They give a composite picture of the life history of a people that can be secured in no other way. They provide means for comparing the development and progress of one community or people with others. A comparison of the present with the past and a definite indication of future trends can be made by their use.

In practice all vital statistics are based upon the population. The frequency of births, marriages, illnesses, and deaths is expressed in terms of population, usually as rates giving the

number for each 1,000 inhabitants or class of inhabitants. A comparison of the births, marriages, deaths, and incidence of disease in different localities or at different periods of time must be based upon a common unit of population. It is necessary, therefore, in order to make vital statistics useful, to obtain first an accurate record of the population showing the number of inhabitants classified according to age, sex, color, nativity and occupation. It is desirable to have these statistics further classified according to economic status as these rates vary with the incomes of individuals or households.

There are several sources of error in the compilation of vital statistics, the most frequent being defective reporting of births, deaths, and illnesses. There is no reliable check by which the failure to register births can in all cases be detected. Health authorities must depend largely upon the cooperation and willingness to help of the medical profession and others in attendance at births. The incomplete reporting of illness cannot be entirely overcome, because many diseases vary in intensity and severity under different conditions, and frequently are not recognized. County health departments have as one of their most exacting duties the collection, classification and comparison of vital statistics. In those counties served by full-time health departments, many illnesses which are potential epidemic foci are reported, investigations are made and the dangers are eliminated. In localities without such services, valuable time is lost and lives are endangered before the state department of health can possibly make any investigation. And far too often in counties without their own health organization, there is little or no reporting of contagious diseases, births and deaths.

BUREAU OF VITAL STATISTICS

EDWARD M. L'ENGLE, *Director*THE TEN LEADING CAUSES OF DEATH FOR THE YEARS
1917, 1926 AND 1936

Certain interesting changes are shown in the ten leading causes of death in the past twenty years. For instance, tuberculosis which was first in 1917 was fourth in 1926 and sixth in 1936; nephritis, second in 1917 and 1926 was third in 1936; diarrhea and enteritis, third in 1917, seventh in 1926, absent in 1936; heart disease, fourth in 1917, first in 1926 and 1936; diseases of early infancy, sixth in 1917, does not appear in other years (revision of the International List of Causes of Death is responsible for this absence); cerebral hemorrhage, seventh in 1917, fifth in 1926, second in 1936; cancer, eighth in 1917, sixth in 1926, fourth in 1936; malaria, ninth in 1917, does not appear in other years; paralysis tenth in 1917, does not appear later.

The following appear in 1926 for

the first time: automobile accidents were in tenth place but by 1936 had moved up to eighth place; premature births were ninth in 1926 and 1936; influenza, eighth in 1926, seventh in 1936; syphilis first appears in 1936 with the rank of ten in the ten leading causes.

These tables illustrate the well known facts relating to the advances of public and private medicine in the period under consideration. These advances have, of course, affected most favorably the hazards of infancy and early life with the result that in 1936, the principal causes of death are for the most part due to diseases which occur in later life. This would seem to point out that the most necessary advances to be made in medicine concern the degenerative diseases.

TEN LEADING CAUSES OF DEATH, FLORIDA, 1936

RANK	CAUSE OF DEATH	TOTAL	WHITE	COLORED
1	Heart Disease (90-95).....	3,897	2,988	909
2	Cerebral Hemorrhage, Apoplexy (82 A-B).....	1,732	1,071	661
3	Nephritis (130-132).....	1,731	1,186	545
4	Cancer (45-53).....	1,458	1,217	241
5	Pneumonia (107-109).....	1,404	814	590
6	Tuberculosis (23-32).....	905	387	518
7	Influenza (11 A-B).....	880	493	387
8	Automobile Accidents (210).....	645	515	130
9	Premature Birth (159).....	508	334	174
10	Syphilis (34).....	391	89	302

TEN LEADING CAUSES OF DEATH, FLORIDA, 1926

RANK	CAUSE OF DEATH	TOTAL	WHITE	COLORED
1	Heart Disease (87-90).....	2,251	1,572	679
2	Nephritis (128-129).....	1,709	1,089	620
3	Pneumonia (100-101).....	1,202	656	546
4	Tuberculosis (31-37).....	1,187	519	668
5	Cerebral Hemorrhage, Apoplexy (74 A-B).....	1,157	734	423
6	Cancer (43-49).....	878	723	155
7	Diarrhea and Enteritis (113-114).....	682	434	248
8	Influenza (11 A-B).....	668	370	298
9	Premature Birth (161-A).....	664	445	219
10	Automobile Accidents (188-C).....	512	396	116

TEN LEADING CAUSES OF DEATH, FLORIDA, 1917

RANK	CAUSE OF DEATH	TOTAL	WHITE	COLORED
1	Tuberculosis (28-35).....	1,085	472	613
2	Nephritis (119-120).....	895	535	360
3	Diarrhea and Enteritis (104-105).....	877	625	252
4	Heart Disease (77-80).....	751	476	275
5	Pneumonia (91-92).....	652	358	294
6	Early Infancy (151-153).....	633	410	223
7	Cerebral Hemorrhage (64).....	497	333	164
8	Cancer (39-45).....	378	298	80
9	Malaria (4).....	273	158	115
10	Paralysis (66).....	231	121	110

WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



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Vital Statistics.....	Edward M. L'Engle, M. D.

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ENTOMOLOGY

W. V. King, Ph. D., Orlando..... U. S. Bureau Entomology

KEY WEST
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UNIT)



FLORIDA

HEALTH NOTES

CANCER CONTROL

Education—the Answer

Relation of the Cancer Problem to Public Health

A Surgeon Speaks

Women's Field Army of the American Society for the
Control of Cancer

Cancer Death Rates, 1920 and 1935, Crude and
Corrected for Age, Florida

Is Cancer Hereditary?

Is Cancer Contagious?



Under the seal of the Women's Field Army of the American Society for the Control of Cancer, hundreds of women are now organizing in the second nation-wide campaign to reduce cancer mortality through education. The seal has just been adopted officially by the Women's Field Army.

The seal, reproduced above, centers on the sword which has long been used as the insignia of the American Society for the Control of Cancer. The hilt rests firmly on the "Women's Field Army" which has become the most important educational arm of the Society. Behind the sword a sun rises over a mountainous horizon, suggesting the dawn of a day of hope. The rays of the sun are bordered by the title "American Society for the Control of Cancer," emphasizing the fact that the educational program is prepared and directed by authorities on cancer. "Fight Cancer with Knowledge" completes the educational emblem under which the Army works.

The sword has been used for ten years as a symbol of the American Society for the Control of Cancer. The serpents, adapted from the caduceus or wand of Mercury, symbol of the medical profession, indicates the dominant role physicians play in the work of the American Society.

FLORIDA HEALTH NOTES

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State Health Officer

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EDUCATION - - THE ANSWER

W. A. McPHAIL, M.D.
State Health Officer

The problem of cancer is one with which public health is much concerned. Unlike the communicable and infectious diseases, such as smallpox, diphtheria, scarlet fever, tuberculosis, there would seem to be no definite point of attack, no recommendations of immunization, vaccination, or isolation. Cancer, in spite of remarkable advance in diagnosis and treatment, still remains the unknown quantity. However, each year has seen the advance of the improvement of diagnosis and one important factor has become very clear. That is the factor of the importance of early diagnosis.

With this as a starting point the public health attitude is clear. Every person is liable to cancer; therefore, every person for his own protection must know one helpful fact which medical science knows about this disease, namely, the necessity for early diagnosis.

Statistics very adequately prove that mortality from cancer can be materially lowered, if the patient eliminates the customary delay in

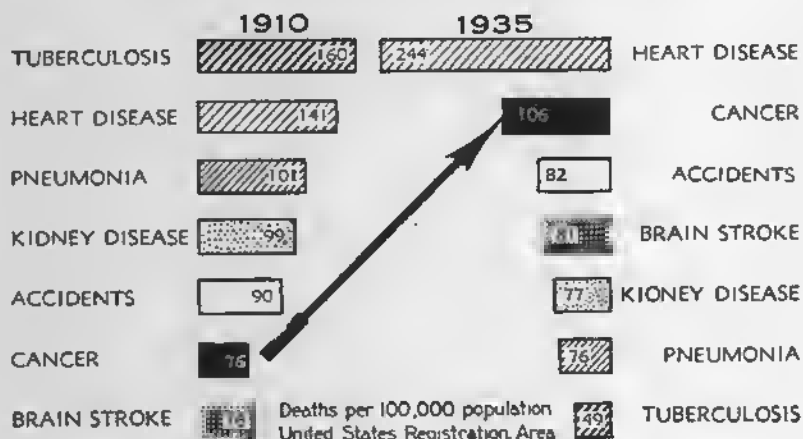
consulting a physician. The ostrich with his head in the sand is still an apt description of many cancer victims. Because, even after cancer is suspected, lack of pain and lack of obvious change in physical condition so often lulls the patient into a belief, engendered by hope, that his suspicions are unfounded and that the trouble will disappear as mysteriously as it came.

From the public health official's viewpoint our contribution to the cancer problem is the widespread education of the public as to the nature of cancer and its possible cure.

Personal hygiene, including the regular, thorough physical examination; immediate consultation with a qualified physician; avoidance of quack "cures"—these are the only weapons the average man has with which to fight cancer.

The Florida State Board of Health through this issue of HEALTH NOTES wishes to cooperate with the American Society for the Control of Cancer and its Auxiliary, the Woman's Field Army, in the battle against cancer.

CANCER RANKS SECOND AS CAUSE OF DEATH



Cancer has risen in the last twenty-five years from sixth, as shown in the tables above, to second place in the rank of killers of mankind—yet today because of scientific progress there is more reason for hope about this disease than ever before, according to the American Society for the Control of Cancer.

This sharp increase in the rate of death from cancer may well be more statistical than real, according to authorities. They point out that two factors contribute largely to it:

1. The upward trend in age levels of our population. As more people live longer, reaching the so-called cancer belt—over forty—there are naturally more deaths from this malignant disease. Improved techniques for dealing with tuberculosis, malaria, scarlet fever, etc., leave more people for the degenerative diseases of old age, among them cancer.

2. Improved diagnostic technique: when a person dies of cancer now it is recognized as such. Lack of skill in diagnosis usually explains the legends that certain primitive peoples, among them the American Indians, never had cancer.

The Women's Field Army of the American Society for the Control of Cancer, an alliance of outstanding women and physicians, is now engaged in its second annual educational campaign. Experts say that today medical knowledge is such that at least half of the 150,000 who die annually of the disease could be saved if they were treated as soon as symptoms appeared. The Army seeks to do for cancer in the next twenty-five years what tuberculosis educational campaigns have done in the last twenty-five years for sufferers from what was once called the white plague. As the charts show, "T. B." has dropped as a cause of death from the top to the seventh place.

RELATION OF THE CANCER PROBLEM TO PUBLIC HEALTH *

GERRY R. HOLDEN, M. D.

*Member, Committee on Cancer Control
Florida Medical Association
Jacksonville, Florida*

As a public health problem, cancer differs materially from that of many other diseases since the question of contagion, or transmission from person to person, is not involved. Therefore, there is no consideration of any specific preventive measures whereby the occurrence of cancer may be prevented and the spread of the disease thereby controlled.

The interest of public health in this condition depends not only upon the high mortality rate of cancer, as shown in vital statistics, but also on the fact that within recent years this mortality rate has been increasing rapidly.

In 1900, tuberculosis, with a mortality rate of 201.2 per 100,000, took first place among the causes of death in the United States, while cancer, with a mortality rate of 63, stood in sixth place. In 1929, tuberculosis had fallen to sixth place with a mortality rate of 76, while cancer had risen to second place with a mortality rate of 96 per 100,000 population, an increase of 52 per cent for a 30-year period.

In Florida, vital statistics, as supplied to me by Dr. Thompson, show an even more rapid rise in death rate. In 1917, the total deaths were 378, a rate of 41.4. In 1926 the rate had risen to 68.3 while in 1931 the total deaths were 1,072, a death rate of 71.2 per 100,000 population; an increase of 69½ per cent for a 14-year period.

These figures should not be interpreted as meaning that the actual number of cancer cases in existence has really increased at this rate. A number of factors must be considered before drawing final conclusions. Great improvement has taken place in the collection of vital statistics. The great advances which have been made in medical education and the training of physicians have made the average doctor a much better diagnostician than he was some years ago. More cancer cases are recognized

today. Moreover, due to improved conditions, we now have a larger proportion of our population of the "cancer age," middle life and beyond. This last factor applies especially to our own State, on account of the large number of the middle-aged who are included in our annual tourist population.

While these factors must account for some of the apparent increase in the number of cases, it seems impossible for them to account for all. It is generally conceded that, in spite of improved methods of diagnosis and treatment, and in spite of the efforts made to get cancer cases early when they have a chance of being cured, cancer, both from the standpoint of numbers and of percentage, is actually increasing.

The problem of controlling cancer, of reducing in some way the enormous number of deaths which are caused by it, naturally differs from that of many other problems of public health. It is hampered by the fact that the ultimate etiology of cancer is unknown; that cases must be reached in the early stages if they are to be cured; but more than anything else, it is hampered by ignorance on the part of the laity. Occasionally, I am sorry to say, it is also ignorance or negligence on the part of the physician himself.

Cancer is one of the oldest known diseases. Undoubted cases of cancer are mentioned in the Bible. We are told that the Egyptians were familiar with it and that the earliest writings of India make mention of it. On down through the ages it has been known, recognized, and dreaded.

It is not to be wondered that there has gradually accumulated, during all these years, a vast number of erroneous and absurd ideas about it, ideas about its cause, its treatment,

*Read before the 4th Annual Meeting of the Florida Public Health Assn., Ocala, Dec., 1932. Reprinted by permission from the Journal of the Florida Medical Association, February, 1933.

and its course. Many of these false conceptions, passed on to us from the ignorance of former years, are some of the greatest stumbling blocks in the control of cancer today.

The erroneous notion that cancer is an hereditary disease, that because a parent died of cancer the offspring would necessarily suffer from it, is widespread. This idea is wrong. While we do occasionally find families in which the repeated appearance of cancer in various generations seem to lend credence to this impression, such incidences are rare and by no means prove the case. Cancer is not an hereditary disease.

Much misery and mental distress are caused at times, both to patients and their families, by the beliefs that cancer is contagious, and that there is something degrading about it. Many patients hide the fact that they have cancer through feelings of shame.

The public mind should be disabused on both of these points. Cancer cannot be transmitted from person to person by any of the ordinary contacts of human life. Neither can any possible disgrace be attached to the cancer sufferer.

One of the most pernicious of these traditional fallacies is the idea that the treatment of cancer is always unsuccessful. How often do those of us who are seeing a large number of cancer cases hear the awful dictum that, "There's no use doing anything. Cancer can never be cured." Many a cancer death is due to the delay caused by this erroneous notion.

Of course, we admit at once that, with our present knowledge, cancer can be cured only if treated before a certain stage in its growth has been reached although at the same time we must also claim that, even in advanced cases, much can often be done to mitigate suffering and even prolong life.

Theoretically, every cancer can be cured if it can be recognized as cancer while it is still a local disease, before it has been carried from its initial site to other parts of the body, provided that the surgeon is able to completely remove every portion of this initial growth. If at-

tempts to cure a cancer are unsuccessful it simply means that one or both of these two conditions could not be fulfilled.

Also, while we frankly admit that, under present conditions, a large proportion, possibly the majority, of all cancer cases treated or operated ultimately die of the cancer, nevertheless, medical science has an extensive armamentarium of therapeutic measures with which we do entirely cure a large minority of all cases that come to us, and a majority of all cases that come to us in the early stages.

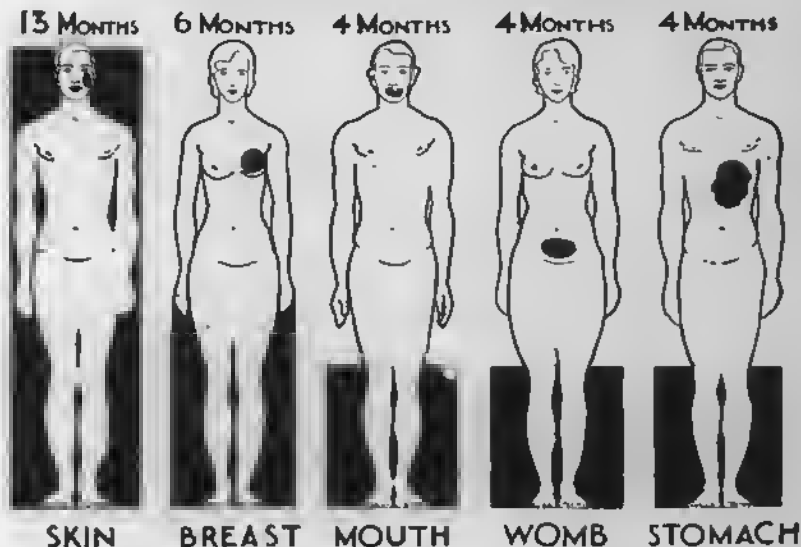
With the treatment of cancer we shall not today concern ourselves. It is indirectly a concern of the public health in that improved methods of treatment and improved facilities for providing such treatment to the cancer sufferer at large will cut down the mortality. But in the State of Florida, therapeutic measures are fortunately still left in the hands of the private physicians, either working directly as physicians of individual patients, or as staff members of our various hospitals, giving their services without charge to the cancer patients in those hospitals.

The field of preventive medicine and early diagnosis is very much within the province of public health work, and here public health agencies can greatly aid in the effort to reduce this cancer mortality.

A few moments ago, I said that the ultimate cause of cancer is unknown. That is true. We do not know why certain causes, certain stimuli, should make normal tissue cells change their orderly manner of growth and suddenly become transformed into those abnormal cells which we recognize as cancer cells. But if we do not know how these causes act, we do at any rate know what many of these causal factors are. Then by eradicating these causes before the cancer ever starts we are actually preventing the appearance of cancer and are helping to cut down its death.

To illustrate: We often have cancers developing in parts of the body that have been the location of long continued chronic irritations and inflammations. This is so frequent

AVERAGE DELAY BEFORE TREATMENT FOR CANCER



This Delay Must Be Reduced

Delay in seeking treatment for cancer is fatal. This chart, showing the average time wasted between the appearance of symptoms that might mean cancer and treatment, explains why the death rate from this disease is twice what it should be. An early diagnosis of cancer is not a death sentence as most people fear; instead, it means life itself.

Although cancer of the skin usually spreads slowly and is the easiest of all types of the disease to diagnose, each year more than three thousand persons die of it. Most of these are men since women are quick to seek an explanation for telltale sores or cuts that do not heal, for moles that spread or change their shape. In ninety-five per cent of the cases, cancer of the skin is curable—if taken in time.

Cancer of the uterus and breast take a cruel toll among women although in early stages cancer in these locations may be cured in from seventy-five to eighty per cent of the cases. Cancer of the mouth, like cancer of the skin, is more prevalent among men than women. Care of the mouth and teeth and regular visits to a dentist are commonsense ways of decreasing one's chance of having this disease. Cancer of the stomach is always difficult to diagnose early, although recently developed techniques of x-ray examinations are helpful.

A prompt visit to a physician is urged when any of the following painless danger signals that may mean cancer appear:

1. Any persistent lump or thickening, especially in the breast.
2. Any irregular bleeding or discharge from any body opening.
3. Any sore that does not heal particularly about the tongue, mouth, or lips.
4. Persistent indigestion, often accompanied by loss of weight.
5. Sudden changes in the form or rate of growth of a mole or wart.

that we consider such chronic irritations as predisposing these parts to the formation of cancer. Irritations of the tongue, or the inside of the cheeks, often terminate in this way. These may be due to the irritations of ill-fitting dentures, jagged or decayed teeth, excessive use of tobacco, etc. If then we relieve these conditions by attention to the teeth, proper dental work or moderation in the use of tobacco we are doing prophylactic work toward the reduction of the cancer mortality.

The field for this type of work is wide. Many different types of cancer may arise from this cause. Skin cancers frequently arise in some pre-existing skin irritation. For example, long continued exposure to the sun and weather may bring on, especially in people of the blonde type, lesions which finally end in skin cancer. Such cancers are found in Florida among our outdoor workers, fishermen, farmers, truck-growers, etc., who unduly expose themselves without protection to the hot rays of the sun.

Cancers of the lip often occur at the spot where a favorite pipe has irritated the mucous membrane for many years. The old clay pipe of our grandfather's day was a potent cause of cancer of the lip as its rough stem had a peculiarly irritating effect on the delicate tissues of the lip. In the genital tract of women chronic irritation is a potent factor. The majority of all cancers of the womb begin in an old tear of the neck of the womb which has been neglected and has become irritated. Also, we may have an irritation beginning in the pre-existing growths, such as some types of moles, which turns these growths into cancerous processes.

Other irritations exist which are at times less easy to diagnose than those previously mentioned. A certain proportion of gastric ulcers become cancerous in their later stages. The same is true of some cases of chronic irritation of the gallbladder, and of the prostate gland.

Enough has been cited to point out the way by which preventive medicine can help in reducing cancer

mortality by preventing the cancer from starting. Education of the public to a realization of the potential danger of such long-standing irritations is one of the important factors in preventive medicine.

A moment ago, mention was made of the fact that certain types of moles and other benign skin growths may at times become malignant. This phenomenon is an illustration of another type of pre-cancerous lesions. Certain pre-existing growths, ordinarily not cancerous, for some reason or other, may later develop into cancer. Various skin growths fall into this category. So also do some tumors of the thyroid gland, prostatic growths, and certain uterine tumors. More frequently do we see cysts and tumors of the ovary, sometimes after many years of slow and innocent growth, become transformed into malignant tumors.

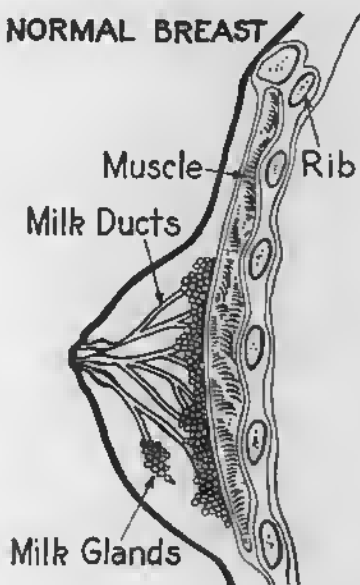
While it is true that the great majority of the various growths just mentioned do not become cancerous, yet a certain proportion do undergo such a malignant change. If this knowledge could be so imparted to the public that the average man or woman would take the proper measures for self-protection, we would advance another step toward the reduction of cancer mortality.

Passing from the domain of preventive medicine to that of actual treatment of these conditions it is necessary to emphasize again the importance of early diagnosis. Unless we can get the growth in its early stages, before it has become generalized, we cannot hope to radically cure it. In this lies the importance of a careful and thorough examination and an exact diagnosis in those cases which may be early cancer.

While many cases in the first stages can easily be recognized as cancer, this is not always the case. Sometimes even the skilled diagnostician has difficulty in deciding whether or not a given condition is malignant. How much more frequently, then, does the physician who does not see many cases of cancer, or the physician who, for one reason or another, fails to give as exhaustive examination as he might, miss the diagnosis.

EARLY CANCER IS CURABLE

NORMAL BREAST



BREAST WITH
EARLY CANCER

Early Cancer
developing
along a milk
duct.



The cancer shown here is in the early stage;
it cannot be seen but can be felt.

Cancer of the breast in its early stages is one of the most curable of serious diseases. If taken when still local, it may be cured in 75% of the cases.

What causes cancer—sudden, wild growth of certain cells—along one of the milk ducts, as indicated in the figure above, is not entirely understood. It is probably due to chronic irritation of some sort and to hereditary susceptibility.

Good rules for guarding against cancer of the breast:

1. Go to a physician as soon as one notices a lump in the breast. Only ten or fifteen per cent of these will be cancer, but they should be promptly investigated. It is dangerous "to wait and see what will happen" to such a lump. If because of delay cancer cells have metastasized or spread to other parts of the body, the odds are five to one *against* a patient instead of, as in early cancer, three to one in her favor.

2. Be sure to have a complete physical examination once a year by a competent physician.

Despite the widespread popular belief, a blow on the breast will not cause cancer, declare the experts associated with the American Society for the Control of Cancer.

The Women's Field Army of the American Society for the Control of Cancer is concentrating its educational drive this year on cancer of the breast and cancer of the uterus since these two types of the disease cause the death each year of more than 30,000 women. Annual physical examinations and prompt visits to a physician for investigation of any irregular bleeding or discharge or lumps could save upwards of 23,000 women each year, authorities declare.

It is easy for the physician not trained in laryngoscopy to consider that the hoarseness of a cancer of the vocal cords is due to a chronic laryngitis. The bleeding of a rectal cancer may be diagnosed as hemorrhoids. Sarcoma of the bone may be mistaken for rheumatism. It is impossible to diagnose certain breast tumors until a bit has been removed and a frozen section examined under the microscope.

These examples of the occasional difficulties in early diagnosis, even at the hands of skilled men, emphasize still more strongly the vital necessity for impressing on the minds of the laity the great value of early examination whenever suspicious symptoms occur. As a corollary to this the public must be given some knowledge of what these early suspicious symptoms are.

For 30 years or more various individuals and organizations have been endeavoring to impart such knowledge to the public about cancer. It is slow work, oftentimes very discouraging. Nevertheless, much has been accomplished. Before this educational program was instituted the majority of all cancers of the womb applied for examination only when the growth had become extensive and inoperable. This was also true of cancer of the breast in a lesser degree. Such a thing as a woman voluntarily coming to the doctor's office to be examined for cancer, was practically unheard of.

Today the picture is very different. For women to come to the gynecologist's office with the question, "Have I got a cancer?" has now become an almost everyday occurrence. To be sure, the great majority have no cancer, but not all. Every now and then an early cancer of the breast or the uterus is discovered in this way and the woman is given a chance for her life which she would not have had otherwise.

This educational work is slow and requires many workers. National organizations are carrying it on, State and civic bodies, medical associations and societies of various sorts. In my work with nurses, in lectures and other forms of instruction, it has always seemed as if they were to

be, in a sense, missionaries. Women talk to other women at times more freely than they will to a man. Every woman in any way connected with medical work or public health work is often in position to impart information which may be of the greatest value, which may save the life, perhaps, of the questioner.

May I, then, in conclusion, recapitulate some of the essential points which I feel that every person should know about cancer, and should be willing to impart to others should the occasion arise.

Any sore or ulcer which runs a chronic course and will not heal should be examined by a competent physician.

Chronic irritations or inflammations in any part of the body demand measures to relieve them. This is especially true in irritations about the mouth, tongue, lips, inner side of the cheeks.

Chronic skin irritations should be relieved. Persons with delicate skins, especially of the blonde type, should not permit long exposures, day after day, to the sun or wind without first properly protecting the skin.

Certain growths, which appear to be non-malignant, should at least have an examination before allowing them to remain, as they may develop into cancer. This is especially true of certain types of warts and moles.

Symptoms of rectal trouble should not be neglected. While a self-made diagnosis of "piles" may be correct, the symptoms may be those of rectal cancer.

Especially should the symptoms of cancer of the womb be reiterated. Because of the phenomenon of normal menstruation, women are so accustomed to vaginal bleeding that they do not realize how significant the appearance of any abnormal flow may be. It should be emphasized that this may be the first recognizable sign of either a malignant or a benign growth. Hemorrhage at the age when the change of life usually occurs is not a symptom of the change of life. Neither is a bloody flow, appearing sometimes after the change has occurred to be interpreted as "a return of menstruation."

A SURGEON SPEAKS

IRVIN ABELL, M. D.

Louisville, Ky.

President-Elect of the American Medical Association

During the present century deaths from cancer have shown a steady increase until at present it occupies a place second only to disease of the heart and blood vessels in causing mortality. Several factors are to be considered in explaining the greater incidence of this malady. The wider application of a greatly augmented knowledge in preventive medicine has resulted in a larger number of people reaching the cancer age—middle and advanced life—than ever before: at the beginning of this century the average duration of life was thirty-three years, today it is 58 years; ninety per cent of cancer occurs after the age of forty. A second factor is to be found in the greater accuracy with which the disease is recognized; the universal employment of the microscope today leaves but little room for doubt in diagnosis. A third factor is an actual increase in the disease, for which there is at hand no logical explanation.

One of the important functions of the medical profession is the production of knowledge; of equal consequence is its dissemination. As regards cancer this has been hampered no little by the misconceptions concerning it held by many people. Chief among these in promoting an attitude of pessimism is that the disease is frequently inherited and that it is wholly incurable. While it is true that in some laboratory animals, notably mice, the breeding of which can be accurately controlled, cancer bearing strains can be produced at will, the analogy does not apply to the human being: with each marriage there occurs an infusion of new and strange blood strains which dilutes and disrupts heredity tendencies. The most that can be said at the present time is that when two individuals, both of cancer-bearing families, are mated, the likelihood of cancer developing in the offspring is increased. The conception that

the disease is incurable is nullified by the many thousands of patients living and well today, years after treatment of microscopically proven cancer. Unfortunately some people have the notion that the disease casts a stigma upon its possessor leading to a suppression of the knowledge of its successful cure and depriving fellow sufferers of the encouragement which such information would provide. The one important fact with which all should be made acquainted is that cancer invariably starts as a local process, not in the blood, not in several organs at the same time, but at one distinct location, the corollary of which is, that if this location be accessible and one without which the patient can live, its removal or destruction by appropriate treatment is followed by cure.

The life history of cancer is that it spreads by involving adjacent structures and by its cells gaining entrance to the blood and lymph streams, floating in these to distant parts and reproducing the original disease at their site of lodgment. Such transference is rarely single, usually multiple, involving important organs and signifies the beginning of the end, since, in the light of present knowledge, there is, at this stage, no effective treatment. The deduction to be drawn from the foregoing is quite obvious; every effort should be made by the laity and by the profession to recognize and treat the disease while still in its initial stage before spread has occurred.

Every cancer is a tumor but not every tumor is a cancer: by tumor is meant a new growth having no physiological function and since tumor implies an enlargement, if it be external, it is susceptible of early recognition. Since but few tumors, including cancer, give rise to pain at their inception, many persons are lulled into a sense of false security, feeling that without pain the en-

largement is inconsequential. Delay at this stage, if the tumor be cancer, is disastrous. The only road to safety lies in seeking competent advice: no lay person is capable of distinguishing between a simple and a cancerous growth and to attempt it is but to invite calamity. In the early and favorable stage the physician will not always be able to make a correct diagnosis on physical signs alone but will require the aid of the microscope. This means of recognition should be employed in every case about which there exists any possible doubt. External tumors are visible and palpable in and under the skin, in the mouth and in the breasts and not infrequently in the abdomen: none are so simple that they may be disregarded except upon competent advice. When the cancerous growth is internal it can neither be seen nor felt, consequently the first intimation its possessor has of its presence lies in a disturbance of the function of the organ in which it is located: and here one finds abundant room for misinterpretation. Menstruation normally pursues a periodic course, variations in which may be due to many causes, one of which is cancer. The menopause or "change" normally means diminution and cessation of flow: increase and prolongation always means disease, not necessarily cancer, but the only way of knowing the cause is by means of a personal examination. Return of the flow after the establishment of the menopause so frequently means cancer that it should be considered such until proven otherwise. All lacerations of the neck of the uterus are not followed by cancer but ninety-five per cent of all cases of cancer in this location develop in such, hence the advisability of repair. Blood in the urine and in the stools result from a deviation in function and always demand an investigation to determine the cause: this injunction applies with equal force when there is a discharge from the nipple. "Indigestion" and "dyspepsia" cover a multitude of sins of omission and commission; commis-

sion on the part of lay people and omission on the part of the doctor in not determining the cause. A disturbance in digestive function may and can be due to dietary indiscretion but when persistent usually has a deeper cause, a possible one being cancer. When one bears in mind the initial local character of cancer and its method of spread the danger of procrastination in the presence of a continued disturbance of function at once becomes apparent. The two danger signals heralding the possible presence of cancer are, though, tumor or enlargement and disturbance of function: when either or both are present no time should be lost in securing an evaluation of their significance.

While cancer is a disease of advanced life youth by no means precludes its presence, ten per cent of all cases being observed before the age of forty. Notwithstanding intensive investigation the cause of cancer remains submerged in obscurity: so does that of smallpox, yellow fever, measles, scarlet fever and other diseases that are amenable to prevention and cure. The knowledge that the tubercle bacillus causes tuberculosis and that the spirochaeta pallida causes syphilis has neither modified their treatment nor prevented their occurrence.

There is no specific cure for cancer, no serum or magic medicine to dissipate its ravages. The three means of treatment which have stood the test of time are surgery, radium and x-ray, applied alone or in combination. A judicious use of these combined with early diagnosis and accessibility of the growth offer a gratifying percentage of cures: in the breast, all cases, 40 per cent; early cases, 80 per cent; neck of uterus, all cases, 30 per cent, early cases, 50 per cent; body of uterus, all cases, 80 per cent; skin, all cases, 90 per cent; lip, all cases, 60 per cent; small and large bowel, all cases, 64 per cent. With a widespread application of the knowledge of the disease in our possession these percentages should and could be materially increased.

WOMEN'S FIELD ARMY OF THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER

LILIANE R. DAVIDSON
State Director of Publicity

The second annual drive for memberships which the Women's Field Army for the control of cancer is sponsoring throughout the United States, finds Florida with a growing organization for a statewide campaign with one objective: to enlist the public in a major offensive against cancer.

Barely two years old, the Women's Field Army, which is an affiliate of the American Society for the Control of Cancer, already has a membership of more than 100,000, with 44 state organizations functioning the year round. Unique in health drives, this all-women army has shown increasing strength in its appeals to the public. Its slogan "Early Cancer is Curable. Fight it with Knowledge" is being spread over the entire country in record time.

For twenty-five years physicians and scientists have been waging an educational battle against cancer. The American Society for the Control of Cancer this year celebrates its quarter-century anniversary. But progress with laymen had been so much slower than increase in the mortality of cancer, that it was decided to appeal to women for help in the education of the layman. And so the Women's Field Army came into being.

A little more than a year ago State Commander Mrs. J. Ralston Wells, of Daytona Beach, put on her first enlistment drive under the heavy odds of lack of co-workers. Nearly 200 joined the Florida band.

This year in sixteen Florida counties enthusiastic forces are recruiting members and promoting an endless variety of educational programs for public education. Work will go on during April, the month set aside by act of Congress and proclamation of President Franklin Roosevelt as "Cancer Control Month," and will culminate in local drives, carried out by county and city units.

The enlistment fees raised will be used to carry on the educational work for the rest of the year. Seventy per cent of the funds remain in the state; the remainder goes to national expense.

The Women's Field Army is active only in those states where its program has been approved by representatives of the state medical society. All its material is examined by state physicians. Speeches to be made before clubs and over the radio; newspaper and magazine articles and pamphlets all must bear the endorsement of recognized medical authorities before the Women's Field Army will use them or authorize their use.

In Florida the set up of the Army comprises:

A Cancer Control Committee of the Florida Medical Association, of which Dr. F. Clifton Moor, of Tallahassee, is chairman.

A State Advisory Committee, of which Dr. Edward Jelks, Jacksonville, is chairman.

A Cancer Control Advisory Committee, formed of the presidents of leading women's organization in the state.

County and City organizations.

A State Commander, vice-commander and publicity director, with offices at 250½ S. Beach Street, Daytona Beach.

The program of the Women's Field Army has been summarized in five points:

1. To teach every man, woman and child that early cancer is curable; that cancer mortality can be reduced only by prompt action of the individual.

2. To spread widely the cancer danger signals and to cut the delay, often fatal if cancer is present, between the appearance of these signs and a visit to the physician.

3. To emphasize the importance of an annual physical examination by a competent physician.

4. To interest men and women in all aspects of the cancer problem.

5. To enlist during the month of April as many men and women as possible in the support of the Women's Field Army; to raise funds to carry out educational work and later to finance other projects as leading cancer authorities in the state may approve.

Membership in the Women's Field Army costs \$1 a year. Funds may be sent to State Commander Mrs. J. R. Wells, 250½ S. Beach Street, Daytona Beach, Florida, pending completion of organization in some points of the state.

That cancer has risen in the past 25 years from sixth to second place in the rank of mortality causes; that 150,000 persons die annually who could be saved if their ills were

diagnosed early; that improved diagnostic technique make it possible to detect cancer early nowadays are points which the Women's Field Army will stress in its educational work. Also the "painless signals" which may indicate cancer and which include:

1. Any persistent lump or thickening, especially of the breast.

2. Any irregular bleeding or discharge from body openings.

3. Any sore that does not heal—particularly about tongue, mouth or lips.

4. Persistent indigestion.

5. Sudden changes in the form or rate of growth of a mole or wart.

Material for speeches may be obtained from state headquarters; there is also a supply of pamphlets and other informative material which may be had by writing to Mrs. Kathleen W. Covey, assistant state commander, Daytona Beach, Florida.

BUREAU OF VITAL STATISTICS

EDWARD M. L'ENGLE, M. D.
Director

CANCER DEATH RATES, 1920 AND 1935, CRUDE AND CORRECTED FOR AGE, FLORIDA

Increase in population 1920 to 1935—66%.

Increase in population 60 years and over—27%.

Increase in crude rate 1920 to 1935—80%.

Increase in death rate 60 years and over—57%.

Years	Crude death Rate	Death Rate Age 60* and Over	Increase of Population 60 Yrs. and Over
1920	50.1	364.4	6.7
1935	90.0	573.6	9.0

*Age 60 is used because in State Census for 1935, population in ages below 60 is given in one group, ages 21 to 59.

IS CANCER HEREDITARY?

Many years ago it was believed that cancer was not only hereditary but that a measure of personal blame attached itself to the presence of this disease. People believed that a taint ran in families and that this showed itself in various forms, including cancer.

Scientific men, on examining into the facts, arrived at the opinion that cancer itself was not directly transmitted from one generation to another, although a certain increased tendency toward its formation did exist among members of some families. Whether this was due to chance or transmitted from parent to offspring is difficult to prove with human material.

A number of biologists have independently announced the results of the breeding of thousands of mice which have been experimented with in order to determine whether cancer was or was not a hereditary characteristic. Mice were used in these ex-

periments for the reason that human beings could not be employed, nor could reliable records of cancer relating to men and women be obtained over a sufficient number of years. The consensus of opinion is that cancer is due to two principal groups of factors. The first of these comprises a tendency or tendencies to uncontrolled growth. These tendencies may be transmitted from one generation to another. The second includes some exciting agent or agents, such as chronic irritation at the particular point where cancer later develops.

The idea that cancer is the result of an immoral act or an immoral life has been discarded. No blame whatever can properly attach to the appearance of cancer. The person, however, who does not learn to recognize the symptoms or signs which may mean cancer, and who does not act promptly when they are observed, is guilty of ignorance, neglect, or both!

IS CANCER CONTAGIOUS?

In spite of the fact that physicians and nurses have come into intimate contact with cancer patients for so many years and have taken no precautions against infecting themselves, there is no recorded instance of one case of cancer giving rise to another.

This is not to say that microbes are never found in cancers. Cancers often become infected with such microbes as infect wounds of any kind and the unpleasant odors which are sometimes associated with cancer are due to these accidental contaminations. Consequently, the precautions to be taken by those who come in contact with cancer patients are only

such as should be followed with infected wounds.

Discoveries are announced from time to time that bacteria have been identified with cancer, but upon full and impartial investigation it is always found that these parasites are connected with the accompanying infection and are not the producers of the malignant condition.

There is no occasion to shun a person who has cancer, so far as danger of contracting the disease is concerned. The victims need all the sympathy and tenderness which can be shown them. Fear that cancer was contagious has sometimes led to unnecessary and uncharitable action toward the sick.

WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



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MALARIA RESEARCH

Mark F. Boyd, M. D., Tallahassee..... Rockefeller Foundation

ENTOMOLOGY

W. V. Klag, Ph. D., Orlando..... U. S. Bureau Entomology

KEY WEST
(MONROE CO. HEALTH
UNIT)



FLORIDA

HEALTH NOTES

MATERNAL WELFARE

Why a Survey of Maternal Deaths?

Maternal Welfare

Value of the Survey

Maternal and Child Welfare

Prematurity

Negro Mothers

Ignorance and Childbirth

What About Abortion?

Maternal Mortality Statistics

THIS GREAT ADVENTURE

TO THE thousands of mothers, this country over, who are going to have babies, life has taken on an added importance. Each has hopes for herself and her child. Will those hopes and desires be fulfilled? The answer depends, to a great extent, upon each mother herself.

Does she know that she should seek care by a competent physician as soon as she thinks a baby is coming? Does she know how to choose her doctor, her hospital and her nurse? Does she know how to live during pregnancy?

Many mothers do not. They cling to their superstitions and customs inherited from a less scientific age. The result—America's needlessly high maternal death rate.

A modern mother has many scientific safeguards which even her mother did not have. Yet most recent figures of the United States Children's Bureau show that since 1915 *there has not been an appreciable decline in the maternal death rate.* During the very period when great discoveries were made in the field of maternity care, America's mothers continued to die at an undiminished rate of 6 for every 1000 live babies born.

The greatest single cause of death among mothers is still puerperal fever. In 1915, the death rate from this cause was 2.4 for every 1000 live births. Twenty years later, it was exactly 2.4! This despite the fact that in many well organized and properly staffed maternity services, a much brighter picture is to be found.

Medical science has also discovered that by regular and frequent examination during pregnancy, untoward symptoms can be detected early and many complications avoided, especially the toxemias with their disastrous consequences. *But the second most important cause of death in childbirth are the toxemias which in 1934 accounted for 23 per cent of all maternal deaths.*

These strange facts, fit for the album of "Believe-it-or-not" Ripley, are not statistics manufactured by the Mad Hatter or the Red Queen in Lewis Carroll's fantastic Wonderland. They picture conditions in the United States today.

What greater challenge do we have than to provide every mother with the care that will rid our land of these unnecessary deaths of mothers in the prime of life?

FLORIDA HEALTH NOTES

Official Monthly Publication of the
STATE BOARD OF HEALTH
JACKSONVILLE, FLORIDA
Est. 1890

HON. FRED P. CONE.....*Governor of Florida*

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WHY A SURVEY OF MATERNAL DEATHS?

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For a long time we have known that the death rate of mothers in Florida has been too high. During the years 1932-33-34, the maternal mortality rate in Florida was the highest in the United States, and since 1934, it has been the second highest. Only one other state has a rate which is slightly higher.

The rate for the United States in 1936, the last for which accurate statistics are available, was 5.7, while the rate for Florida during that same year was 7.7. This means that seven mothers died of causes attributable to childbirth, for every 1,000 children born alive. During that year, 28,097 children were born alive in Florida and 216 mothers died. From the best information we have, at least two-thirds of our maternal deaths are preventable and, therefore, at least 144 of these mothers need not have died. To make the picture worse, the death of the mother is also often followed by the death of the baby, and a large number of older children are made motherless or homeless at the same time.

The Maternal Welfare Committee of the Florida Medical Association is attempting to discover why these deaths occur, and thus have a basis

upon which to base their efforts in trying to remedy the condition. So many elements and conditions are involved that it is believed nothing less than a survey of each death as it occurs will suffice. A questionnaire has been prepared by the members of the Maternal Welfare Committee, which the physician or others signing the death certificate are asked to fill out. A field worker from the State Board of Health is cooperating in this work.

No one recognizes the need for correction of a condition such as this any more than the private practitioner, and without exception the physicians contacted have given wholehearted cooperation. They have been most helpful and anxious to assist in the work.

The high maternal mortality rate in the United States constitutes one of the major health problems of today; and the Maternal Welfare Committee, as well as the entire Florida Medical Association, is to be congratulated for taking this definite step as their contribution to the fight to save the lives of mothers who die unnecessarily from causes incident to childbirth.

MATERNAL WELFARE

HOMER L. PEARSON, M. D.

*Chairman, Committee on Maternal Welfare,
Florida Medical Association*

Maternal welfare is a subject which should interest not only those of us who practice the healing arts, but should interest all people. There has been for too long a time, a feeling among people that maternal welfare is a matter which should be thought of only by the doctor, and that if one died during childbirth it was the fault of the doctor or an act of God.

There has been so much in print recently in lay journals and magazines, that the public in general is beginning to wake up to the fact that there has been some neglect somewhere, and is also becoming aware of the fact that with adequate care the maternal mortality rate can be materially reduced. So the time has come when we as safeguards of the public health, must and will do something about it.

The question immediately arises; what can we do about it? Our first duty is to make competent obstetric care available to all those who need it. This can be done only by raising the standards of those who are allowed to practice midwifery. One must be as adequately trained and equipped to do obstetrics as one must be to do good surgery. It must be made impossible for one to preside in the lying-in room, who has not proved his ability to handle at least the common complications which might arise. One must also know when not to interfere.

The second thing we can and must do, is to educate the prospective mothers of this state and nation, so that they will know the importance of seeking obstetric advice and care early and regularly. They must be taught the fundamental principles of adequate obstetric care so that they will themselves know if they are receiving proper care.

These are the two main objectives of the Committee on Maternal Welfare of the Florida Medical Association, and these are objectives which can be reached with proper cooperation between the doctors, the health officials and the public. If the

doctor does not properly equip himself for his work, it does no good to educate the public to seek his advice, neither can the doctor dispense good obstetric care if those who need it do not apply.

The Committee on Maternal Welfare in conjunction with the State Board of Health is beginning a survey, the purpose of which is to try to determine the cause of Florida's very high maternal mortality rate. We all know it is almost impossible to relieve any situation without first learning the cause. We also know that we cannot successfully make this survey unless we are absolutely honest with ourselves.

The details of this survey are to be carried out by the State Board of Health through its Bureaus of Vital Statistics and Maternal and Child Health.

Whenever a maternal death is reported the physician reporting the death will receive a letter, notifying him that he will be called upon by a public health nurse, who has a questionnaire which will need his cooperation in filling out. There is not sufficient space on a legal death certificate for the information desired on these deaths, therefore the necessity for the questionnaire. We all realize that the questionnaire is valueless without complete cooperation between all parties concerned. If we do not cooperate fully the health authorities must assume that we have something to hide.

The survey must not be considered by anyone as a criticism. We all have maternal deaths, but for some reason Florida has more than its share. We must determine by this means, if it is due, (1) to the doctor, (2) to the midwife, (3) to others not equipped to do good obstetrics, or (4) to the patient who has neglected to seek good obstetric care.

If by this survey we learn that the care is not adequate or available, it must be made adequate and available. If we learn that those needing such care are not seeking it, then

they must be taught to seek it and told where it can be obtained.

The plan is to carry on this survey over a period of years, making observations all along and if possible make corrections as mistakes appear.

It is a lamentable fact that the laws of the state of Florida are so lax that they allow any person, whether he or she, has had any particular training in obstetric care to assume the great responsibility of safely guiding a mother through this important event of her life. The doctors of this state and nation have long tried to have sufficient legislation passed to

protect our prospective mothers, but with little success. It is hoped the public will get excited over the situation and will join us in demanding our legislative bodies to at least consider our appalling maternal death rate, seriously, and in helping us correct it.

So let me plead with you to cooperate with us in this great work which I know will make it possible to save many mothers and babies who are needlessly being taken from us.

Help save the mothers for the babies and the babies for the mothers.

VALUE OF THE SURVEY

W. A. McPHAIL, M.D.,

State Health Officer

That the high maternal mortality of Florida is a concern of official public health, as well as the private practitioner of medicine, has long been recognized. In 1918, the State Board of Health established a Bureau of Education and Child Welfare. One of the duties of this Bureau was to attempt some supervision of the many negro women then acting as midwives to a large portion of Florida's rural population, both white and colored. To quote the Director of the Bureau: "Education of the colored midwife is a grave necessity . . . Classes have been founded in several centers for these women."

In 1920, according to the report of the Bureau Director, 3,330 midwives received sanitary obstetric packages.

In 1922 the Shepard-Towner Bill brought additional funds to the State Board of Health, and the first move made was a midwife survey of the entire state. The results of this survey showed that 4,000 negro women were doing midwife work.

Later in the year the first *Midwife Manual* was written by the Director of the Bureau of Maternal and Child Health. This manual attempted to

standardize in some measure the instruction of those midwives it was possible to gather into classes. Individual home instruction was also given.

In 1931, the Florida State Legislature passed the Midwife Law, compelling all midwives to register with the State Board of Health. This was a long needed step and marked the beginning, at least, of anywhere near adequate supervision.

In 1937, 1,152 colored midwives were registered with the State Board of Health and it is safe to say that of this number almost one hundred per cent are under the instruction of the Midwife Supervisor and nurses of the State Board of Health.

That the midwife is and will continue to be for some time a part of the Florida picture is indicated. Therefore, to keep her under supervision, to replace the old granny with the young trained midwife, is vital to the welfare of many of Florida's prospective mothers.

The decision of the Maternal Welfare Committee of the Florida Medical Association to make a survey into the cause of every maternal death

in Florida is in line with the action of several other Medical Associations, such as Philadelphia, New York, and Baltimore. Inestimable good will result from such a survey and the Florida Medical Association is to be congratulated on the wisdom of this move.

Florida's maternal death rate is lower than in former years. In 1917 the rate was 11.6 for every 1000 live births; in 1923, 12.4; in 1929 the rate had fallen to 9.5, and with the exception of 1933, a depression year, when it soared to 11.1, the maternal death

rate has consistently fallen, reaching a new low of 6.6 in 1937. These figures are of course the total of white and colored deaths. The maternal death rate in Florida's colored population is much higher; 11.8 in 1934, but there has been a drop from 15.7 in 1917.

That the maternal death rate is still much too high is the reason for the decision of the Florida Medical Association to make a survey into the causes, and the State Board of Health will cooperate in this praiseworthy venture.

MATERNAL AND CHILD WELFARE

WARREN W. QUILLIAN, M. D.
Secretary, Florida Pediatric Society

Sickness exacts its toll both economically and socially. It has been estimated that on any average day of the year there are about four million persons disabled by illness. During the course of a year about seventy million people lose one billion days from work or their accustomed activity.¹ But these large figures are bewildering to most of us. We can visualize the problem more clearly by consideration of the individual.

Recently the interest devoted to a more adequate national health program has revealed that better medical care in maternity, in infancy and childhood must be provided. Despite progress in research and in scientific accomplishments for the prevention of disease there is yet a large and unnecessary waste of maternal and child life. There is some reduction of mortality rates for older children during the past twenty-two years; but no decline in death rates of infants during the new-born period.¹ Maternal deaths from sepsis and from toxemias of pregnancy are far too

high. These facts provoke thoughtful consideration. If preventive measures that are successfully applied in many urban communities can be made available for the rural districts there will be an inevitable improvement in statistics from which we draw our conclusions. When we consider the large number of women delivered annually without any prenatal care it is evident that an intensive program of education in health matters is imperative.

The Florida public health organization cannot accomplish its task effectively without enthusiastic support from lay groups, and without the individual support of Florida physicians. New health units are limited on account of inadequate funds. It therefore becomes the responsibility of each one of us to assist in rendering more efficient service to the community with facilities that are at present provided. By education of the public we can demonstrate the urgent need for a more adequate organization.

Modern medical science has much to offer in the prevention of disease. Yet, in the National Health Survey of 1935-36, it was revealed that about 40 per cent of the disabling illnesses among children under fifteen years of age were due to measles, scarlet fever, diphtheria or whooping cough. All of these diseases can be modified or prevented by generally accepted procedures. Proper application of these methods of immunization would reduce the annual average of 15,000 children (in the United States) who die from these diseases.

More attention should be devoted in our schools to the maintenance of proper nutrition and to maximum physical development. Health supervision is attempted in many larger communities of the state. But those who devote their time to this work are handicapped often by the lethargic attitude of the parents and by the inadequacy of facilities provided for their use.

The physician should take a more intelligent interest in the proper protection of the milk supply. Few of us ever visit the dairies which provide milk for consumption by our own children. In a recent questionnaire it was revealed that few physicians of Dade County could define "certified milk"; and a smaller number were able to state definitely the standards of excellence to which certified milk must conform. This bespeaks apathy rather than an attempt to evade responsibility.

Many defects found in routine health surveys of children can be corrected. Malnutrition, dental caries, error of vision and lessened acuity of hearing are frequently found. Proper correction of these defects during childhood will often prevent subsequent illness. Social maladjustments may develop later when a consciousness of their importance does not exist early in the life of the individual. Success of any program designed to correct defects that may be remedied demands cooperation of parents, physicians and the public

health organization of the community.

In a recent issue of *Health Notes* (December, 1937) the problem of tuberculosis in Florida was discussed by a student of one of the 'high schools of this state. The article won first prize in an essay contest sponsored by the Woman's Auxiliary to the Florida Medical Association. It is heartening to note an awakened interest among the youth of Florida in efforts to combat this dread disease. Success of our efforts to eliminate tuberculosis depends on early diagnosis. Responsibility for prompt recognition and evaluation of symptoms rests equally with the parents and the physician. To facilitate early diagnosis routine tuberculin tests should be done. This procedure would assist in recognition of tuberculosis often at a stage when the disease might be brought under prompt control.

Doctor Thomas Parran, at the Conference on Better Care for Mothers and Babies (Washington, D. C., January, 1938), called attention to maternal and child health in relation to the health of all people. He stated that "better care during pregnancy and childbirth, protection of the health of children, good nutrition and sound physical development in youth, protection against the acute communicable diseases, control of tuberculosis and syphilis, all assume an importance to the community as a whole." Our frequent neglect of problems whose solution would result in an improved state of health for the children of Florida does not reflect credit upon the communities in which we live. It is fitting that on the occasion of Mother's Day and the national celebration of Child Health Day we should pause and "think on these things."

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WHAT IS GOOD CARE ?

The Maternity Center Association of New York outlines the following eight points as comprising the care which every mother should have:

1. A complete examination by a competent doctor early in pregnancy.
2. A dental examination early in pregnancy and the care that is needed.
3. Medical and nursing supervision, care and instruction throughout pregnancy.
4. Attention to any problem that may affect the health of the baby or mother or may disturb her peace of mind.
5. An aseptic delivery under the supervision of a competent doctor with skilled assistance.
6. Medical and nursing supervision, care and instruction after delivery until the mother is able to resume her usual activities and to carry the additional responsibility of a new baby.
7. Postpartum examinations one, two and three months after delivery with follow-up treatment if indicated.
8. Arrangements for the health supervision of the baby and for the further care of the mother when she needs it.

PREMATURITY

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Florida Medical Association

The frequency of premature birth varies with the different groups of the population, ranging from four to eleven percent. With the hectic state of the world in general nothing becomes entirely mature. Within the last decade and a half there has been an absolute increase in premature births.

Everyone is cognizant of the fact that with a higher incidence of prematurity there is a greatly augmented infant mortality. The reason for this is that any organism in which all of the symptoms are immature or unripe, lacks some ability to adapt itself to a markedly changed environment. The toxemias of pregnancy produce the greatest number of premature infants. Syphilis in our experience plays an important, but not the most important role, as was once believed.

The medical profession has made a splendid response to the general demand for better prenatal care. As a result there is no reason why any pregnant patient in any walk of life, should be deprived of expert supervision, if she will report for periodic examination and will follow the instructions outlined by her physician. With cooperation between the patient and physician both are informed at all times of her exact physical status. This will reduce the incidence of premature births and when they do occur both physician and patient will be prepared to meet the situation in a proper and most satisfactory manner and to give the tiny newcomer a far better chance to survive.

Preparation should be made for a warm reception for the premature infant. From birth the proper degree of body heat must be maintained. A large number of these babies suffer from a depression of the respiratory center and as a result it is often difficult to inaugurate respiration. Gentle means of resuscitation must be used rather than vigorous physical efforts on the part of the attendant. The use of alternating hot and cold immersions of these babies often brings

about chilling from which they do not recover. The violent physical maneuvers often cause rupture of the air sack of the lung and may sometimes cause a broken neck or some other serious damage to the infant. While efforts are being made to make the baby breathe the body heat must be maintained, or all efforts will be in vain. These little babies chill very easily and the range of body temperature may be very great. The heat regulating center is not stable and as a consequence the infant may suddenly become too cold or too hot, depending upon the facilities for regulating body heat. With either extreme the resistance of the child is markedly lowered and infection follows with sad results.

Definite written instructions should be given for the care of each newly born child. It is imperative that the attendant upon the premature child should be free of infection and should attend to the child as a special detail. Of course, masks for the nose and mouth, and gown should be worn. All other persons should be excluded from the premature room and satisfy their curiosity from a safe distance.

From the practical point of view it is impossible to give the small premature its theoretical food requirement during the first few days of life. The functions of sucking and swallowing are often not correlated and as a result, special care must be exercised in the feeding process. Great patience is required to get in even the minimum requirement of food. Medicine droppers, specially designed apparatus for feeding, and often feeding through a nasal tube must be resorted to. Often sustaining fluids must be given by sterile technique under the skin.

Mother's milk is the ideal food when obtainable. Different types of powdered milk are obtainable on the market which are satisfactory food for the baby. These foods should be given by direction of the attending physician.

Practically all premature infants are pale or anemic. This is due to the fact that the store of iron in the internal organs is not as great as in that of a normal full-term baby, therefore, some form of iron should early be prescribed by the attending physician. All of these babies should receive cod liver oil concentrate much earlier than normal babies to minimize the occurrence of rickets. Tomato juice or orange juice should be begun early, in these infants, in

very small amounts and increased gradually depending upon the tolerance of the individual child. These juices are as necessary as is milk.

The "job" of being born is the hardest task that lots of people have to endure. The hazards of birth are greatest in very large children and in premature infants.

Premature infants who receive proper care and supervision develop physically and mentally as do their larger brothers and sisters.

NEGRO MOTHERS *

The risks negro mothers take in childbirth are nearly twice as great as those of white mothers, and one of the chief causes of this difference is that maternal and child health work among negroes in this country is still in the pioneer stage, according to a recent report of the United States Children's Bureau, "Infant and Maternal Mortality Among Negroes," by Dr. Elizabeth Tandy.

"The maternal mortality of negro women," stated Dr. Tandy in the report, "is a matter for serious concern. During the period 1933-35, approximately 2,400 negro women died each year from conditions directly due to pregnancy and childbirth—a mortality of 96.1 per 10,000 live births. One negro woman out of every twelve who died in the reproductive period of life, 15 to 44 years, died from a puerperal cause. Diseases of pregnancy and childbirth are responsible for the deaths of more negro women of these ages than any other disease except tuberculosis."

Dr. Tandy finds that the negro maternal death rate in some states is astonishingly high. In Oklahoma, for instance, it is 157 per 10,000 live births as compared with 53 for the white mothers. In Kentucky, it is 143 to 48. The negro maternal death rate is falling, but in spite of decreases the mortality rate among negro mothers in 1935 was much higher than that of white mothers in 1928. This is due largely, according to Dr. Tandy, "to the gradual adaption of the negro to his environment and to

the increasing helpfulness of communities in which he lives.

"The number of deaths assigned to the puerperal state, although great, do little more than suggest the total loss of life by childbirth," according to the report. "The resistance of many mothers with disease of the heart, tuberculosis, chronic nephritis, or other long standing conditions is lowered by childbirth, and their deaths are, in many instances, assigned not as puerperal diseases but to the disease which preceded their pregnancy. Also, many of the mothers who survive childbirth do so with lowered health status."

This loss of health of the negro mother more gravely affects the family life, because, even more than the white mother, she serves as nurse, cook, and housekeeper, and also as a contributor to the family income. The health and welfare of the children are recognized as wrapped in the health and welfare of the mother, and this is even more true for the negro child than for the white child. The study points out the great need for the development of maternal and child health work among negroes. "The wholehearted acceptance of negro people of the health facilities that have been made available for their use in the past give encouragement to workers who may be active in the development of future programs for safeguarding the health of negro mothers and infants."

* Maternity Center Association.

IGNORANCE AND CHILDBIRTH

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A motly group of people have taken part in this business of helping at childbirth—the primitive Indian medicine man with his weird dances and blood-curdling incantations, the ignorant midwife, the crude and dirty barber-surgeon, shepherds and herdsmen, and the murderous midmen. What a long way we have come from these to the trained nurse and the well-equipped obstetrician. An astounding change has taken place in the scene of childbirth too. The primitive woman retired from her tribe as the birth of her child became imminent, and on the banks of some stream went through her travail alone; or she was taken to a small hut packed to suffocation with the stinking bodies of men and women spectators, where her suffering and her cries of anguish were accompanied by the shouting and crying of her friends. If labor was difficult she was picked up by the feet and shaken head down, or she was laid on her back to have her abdomen trod upon by the largest braves of her tribe. If the baby lay in an abnormal position, transversely across the pelvis, so that it could not be born, both mother and child were left to suffer and starve in the woods until merciful death brought surcease.

It has often been said that primitive woman, because she was not bound by the shackles of modern civilization, gave birth more easily to her child than the woman of today. There is no sound reason for such a statement. It has been made to excuse thousands of needless deaths that soil our obstetrical hands every year. The primitive woman had none of the scientific advantages that the best medical minds for the past 600 years have been able to imagine, as her sister of today has. Many cases have been cited of women who have worked up until labor actually began, and then with only a few hours off for the delivery of the

child, returned to their tasks. There are those who would have us believe that childbirth is a simple matter, but the tombstones in our graveyards tell a different story. There are others who in their pseudo-religious zeal believe that the welfare of the soul is of more importance than the welfare of the body. They quote glibly biblical references—"In sorrow thou shalt bring forth children", and the lament of Jeremiah, "For I have heard a voice as of a woman in travail, the anguish as of her that bringeth forth her first child." They would have us believe that the pain of childbearing is woman's heritage. They are little better than those medieval butchers who "when a child could not be brought forth employed the knife in such a way that there was no possibility of cutting the living child, who if the child was injured destroyed both the child and mother together."

The hundreds of thousands of sacrifices that have been made on the altar of ignorance, and fear, and superstitious religious beliefs, are excusable in the light of our present knowledge, but we have no defense against the accusation of murder today. We do not need greater and more intensive obstetric knowledge that we may be able to save a few mothers from rare complications, but we do need the average of the prenatal care given to all patients raised. It is not necessary to impress those in high places with the value of obstetric practice; we must elevate it in the minds of the masses.

The responsibility of the medical profession is to set a high standard of education for all doctors who give maternity care. And the profession is bearing that responsibility well. It cannot be blamed for the cults and the charlatans who are legally allowed to attend mothers in childbirth. The remedy for that ill rests with the community. It is also the community's responsibility to pro-

vide care for mothers who cannot pay. "What is being done for some women should be done for all." This end will only be accomplished

when we cease to exalt profit above human welfare, and when we learn that there is a price upon a human life.

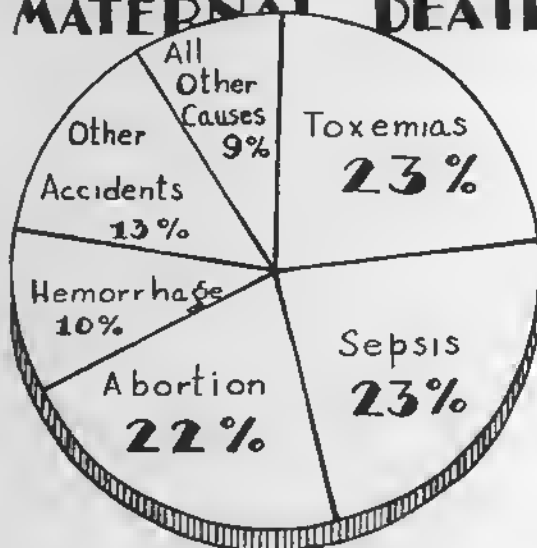
WHAT ABOUT ABORTION?*

HOWARD C. TAYLOR, JR., M.D.

The three most important causes of maternal mortality are the toxemias, puerperal sepsis, and abortion. Each, according to figures of the United States Children's Bureau, is responsible for nearly one-fourth of the deaths of mothers.

a threat to maternity which has steadily increased in seriousness and importance. Yet, because of the complexity of its social, economic, and religious aspects, abortion presents a problem few have had the courage to approach. Furthermore, since it is

CAUSES of MATERNAL DEATHS



UNITED STATES 1933-1935
Children's Bureau U. S. Department of Labor

Extensive scientific research is being devoted to the toxemias, and good prenatal care appears to offer a method of reducing the frequency of serious complications from this group of diseases. Efforts are also worldwide against puerperal sepsis. Recent progress here has perhaps been slow, but when one looks at the history of the last hundred years, it is clear that the reduced frequency of infections after delivery has been obstetrics' most brilliant achievement. But what about abortion? It offers

not a purely medical question, the physician feels his responsibility less directly, while legislators and social agencies also regard it as not definitely in their fields. Nevertheless, abortion explains such a large fraction of our present maternal mortality that it is a tempting field to enter.

Here are a few facts about abortion. Dr. Taussig, the author of a recent book on this subject, has estimated that there are 681,000 abor-

*Maternity Center Association

tions in the United States every year, with a resulting eight thousand deaths. Forty years ago the ratio of abortions to confinements was probably about one to seven, but Taussig believes that throughout the country it is now one to three. In some industrial centers the number of abortions perhaps equals the number of full-term deliveries! Over one-half of the illegal abortions are done by physicians, one-fifth by midwives, and the remainder by expectant mothers themselves.

The reduction in the deaths from abortions cannot be achieved by medical research but by a fundamental attack upon many basic social problems. The motives which drive the patient to seek abortion must be analysed and the causes if possible removed. This leads one at once to the problem of improving the prospects for the unmarried mother and her illegitimate child; to the removal of some of the economic hazards which face the young married couple living on an income inadequate for three persons; to the need of allaying prevalent fears of the physical discomfort and the risks of childbirth; and to the necessity of developing in all married persons a sense of their share in the responsibility of producing a new generation. These are fundamental needs which will require years of careful planning.

Efforts to suppress the abortionist himself have met in the past with little success. There will always be a few physicians willing to do these operations, and juries will not be too

hard on men performing a function which society, shamefacedly perhaps, condones. The conscientious physician can still do much by disciplining his colleagues and by controlling medical opinion, as well as by directing his patients to other solutions of their problems.

A spread of knowledge is an important beginning toward a solution of the problem. A woman who has discovered the possibilities of abortion through gossip with a friend little realizes the dangers that are involved. These she should learn. First, she may die; an unlikely result for the individual woman concerned, but it is what happened to several thousand American women last year. Much more often she will become sterile from the effects of the moderate infections which frequently follow such procedures. At best, she is subject to the psychological degradation of doing in secret what she is ashamed to do openly, to close contact with a man or woman whose ethics in one respect at least are not of the best, and finally to the remorse in later years of thinking of a son or daughter who might have been born.

Many abortions are undertaken on the impulse of the moment, when an unexpected pregnancy clouds the immediate future. A friendly word of encouragement and warning, a discussion of the many risks, will often serve as a check until, after a few weeks of mental readjustment, the pregnancy is gladly accepted. Such a word must often come from the physician, but it is as valid from any other friend.

"Only when the public knows what constitutes adequate maternity care, will they be able to work with doctors and nurses to secure such care for all expectant mothers. When this care which now but few enjoy is available to all women at a price which each can pay, then will our maternal mortality rate be lowered."

—Hazel Corbin.

BUREAU OF VITAL STATISTICS

MATERNAL MORTALITY

E. M. L'ENGLE, M.D.

Director, Bureau of Vital Statistics

For the second successive year, the maternal mortality rate has shown a gratifying decrease. For the year 1937, the rate is 6.6, the lowest ever recorded in the State. The

next lowest was in 1936, with a rate of 7.7.

The rate among the white population in 1937 was 5.2; among the colored, 10.0.

Deaths from Diseases of Pregnancy, Childbirth and Puerperal State, and Rates per 1,000 Live Births, by Color, Florida, 1917-1937

YEARS	TOTAL		WHITE		COLORED	
	Puerperal Deaths	Per 1,000 Births	Puerperal Deaths	Per 1,000 Births	Puerperal Deaths	Per 1,000 Births
1937	196	6.6	107	5.2	89	10.0
1936	216	7.7	118	6.0	98	11.8
1935	238	8.5	140	7.1	98	11.6
1934	219	8.2	127	6.8	92	11.4
1933	285	11.1	154	8.7	131	16.2
1932	262	9.6	149	7.9	113	13.2
1931	267	9.9	142	7.6	125	14.9
1930	267	9.9	155	8.3	112	13.3
1929	255	9.5	144	7.9	111	13.0
1928	280	9.4	175	8.5	105	11.5
1927	352	10.3	202	8.5	150	14.7
1926	357	10.3	214	8.6	143	14.5
1925	330	11.3	186	9.3	144	15.6
1924	284	10.6	138	7.6	146	16.9
1923	287	12.4	164	10.5	123	16.2
1922	235	10.7	128	8.4	107	16.0
1921	230	10.4	119	7.8	111	16.2
1920	181	9.3	97	7.2	84	14.0
1919	183	9.8	96	7.5	87	15.0
1918	174	9.6	89	7.0	85	15.4
1917	207	11.6	125	9.8	82	15.7

Deaths from Diseases of Pregnancy, Childbirth and Puerperal State, and Rates per 1,000 Live Births, by Color, by Counties, Florida, 1937

COUNTIES	TOTAL		WHITE		COLORED	
	Puerperal Deaths	Per 1,000 Births	Puerperal Deaths	Per 1,000 Births	Puerperal Deaths	Per 1,000 Births
State	196	6.6	107	5.2	89	10.0
Alachua	5	6.3	1	2.5	4	10.3
Baker	1	5.1	1	7.2	0	—
Bay	3	6.3	2	5.0	1	12.7
Bradford	1	4.9	0	—	1	16.9
Brevard	3	16.1	1	8.4	2	29.9
Broward	3	6.1	1	4.2	2	8.0
Calhoun	1	4.8	1	5.6	0	—
Charlotte	0	—	0	—	0	—
Citrus	2	19.8	2	30.8	0	—
Clay	0	—	0	—	0	—
Collier	0	—	0	—	0	—
Columbia	7	18.8	6	27.5	1	6.5
Dade	12	3.8	7	2.9	5	6.7
DeSoto	1	5.6	1	6.7	0	—
Dixie	1	8.3	0	—	1	28.6

Deaths from Diseases of Pregnancy, Childbirth and Puerperal State, and Rates per 1,000 Live Births, by Color, by Counties, Florida, 1937—(Cont.)

COUNTIES	TOTAL		Puerperal Deaths	WHITE		Puerperal Deaths	COLORED	
	Puerperal Deaths	Per 1,000 Births		Per 1,000 Births	Puerperal Deaths		Per 1,000 Births	
Duval	20	6.4	15	6.9	5	5.3		
Escambia . . .	11	8.7	8	7.8	3	12.7		
Flagler	0	—	0	—	0	—		
Franklin	0	—	0	—	0	—		
Gadsden (Ex.)	4	6.9	0	—	4	11.0		
State Hospital	0	—	0	—	0	—		
Gilchrist . . .	1	8.1	1	10.3	0	—		
Glades	2	54.1	2	71.4	0	—		
Gulf	0	—	0	—	0	—		
Hamilton . . .	2	7.8	0	—	2	21.3		
Hardee	1	5.6	1	6.0	0	—		
Hendry	0	—	0	—	0	—		
Hernando . . .	2	16.9	1	12.0	1	28.6		
Highlands . . .	0	—	0	—	0	—		
Hillsboro . . .	16	6.4	9	4.4	7	15.4		
Holmes	3	8.8	3	9.1	0	—		
Indian River	1	6.0	0	—	1	21.7		
Jackson	4	5.1	4	8.5	0	—		
Jefferson . . .	2	6.6	0	—	2	8.5		
Lafayette . . .	0	—	0	—	0	—		
Lake	3	6.1	2	6.0	1	6.4		
Lee	2	6.4	1	3.8	1	19.2		
Leon	7	11.8	2	8.2	5	14.3		
Levy	1	4.6	0	—	1	14.3		
Liberty	0	—	0	—	0	—		
Madison	1	2.7	0	—	1	3.2		
Manatee	1	2.6	0	—	1	7.0		
Marion	9	16.8	4	16.9	5	16.7		
Martin	0	—	0	—	0	—		
Monroe	0	—	0	—	0	—		
Nassau	1	6.2	0	—	1	14.3		
Okaloosa . . .	1	3.5	1	3.9	0	—		
Okeechobee . .	0	—	0	—	0	—		
Orange	6	6.7	3	4.4	3	14.4		
Osceola	0	—	0	—	0	—		
Palm Beach	11	12.1	5	9.1	6	16.6		
Pasco	2	8.0	2	9.7	0	—		
Pinellas	8	8.2	4	5.3	4	17.9		
Polk	8	5.4	5	4.4	3	9.3		
Putnam	3	8.5	1	4.4	2	15.5		
St. Johns . . .	4	11.7	1	4.9	3	21.9		
St. Lucie . . .	1	5.3	0	—	1	14.5		
Santa Rosa . .	1	2.9	1	3.5	0	—		
Sarasota	0	—	0	—	0	—		
Seminole . . .	1	3.1	0	—	1	5.6		
Sumter	0	—	0	—	0	—		
Suwanee	3	7.3	2	7.5	1	6.8		
Taylor	2	11.2	0	—	2	26.7		
Union	1	9.9	1	11.5	0	—		
Volusia	5	7.1	3	6.1	2	9.5		
Wakulla	2	23.0	0	—	2	44.4		
Walton	2	7.5	1	4.6	1	20.8		
Washington . .	1	3.5	1	4.5	0	—		

WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



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Drug Inspectors.....	M. N. Dess
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Health Education.....	Elizabeth Behnenberger
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Dist. 2. Jacksonville.....	
Dist. 3. Doala.....	D. C. Witt, M.D.
Dist. 4. Barlow.....	C. W. Pease, M.D.
Dist. 5. West Palm Beach.....	Leland H. Dame, M.D.

MALARIA RESEARCH

Mark F. Boyd, M. D., Tallahassee.....	Rockefeller Foundation
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ENTOMOLOGY

W. Y. Klee, Ph. D., Orlando.....	U. S. Bureau Entomology
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KEY WEST
(MONROE CO. HEALTH
UNIT)



F L O R I D A

HEALTH NOTES



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Marriages, Divorces and Annulments, 1937 . . *L'Engle*
"The Third Essential"

*After all, the idea that the doctor should be a community leader in health is not new. He has always been such a leader. It is necessary only to glance back into the history of development of our boards of health and our voluntary organizations to observe that doctors were important factors in the organization or development of these community services. Doctors have always consistently protected constructive legislation by their influence, and have constantly opposed unwise legislation affecting the public health.**

W. W. BAUER, M. D., *Director*
Bureau of Health and Public Instruction
American Medical Association, Chicago

*Address before the Seventh Annual Meeting of the Florida Public Health Association, Orlando, Dec. 2, 3, 4, 1931

FLORIDA HEALTH NOTES

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State Health Officer

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BARNACLES OF PUBLIC HEALTH *

W. A. MCPHAUL, M. D.
State Health Officer

"Barnacles are usually found on the bottoms of vessels, whose speed they greatly diminish."

Many barnacles are attached to the good ship *Public Health*, and there is none among us who would not admit that these barnacles "greatly diminish" the speed of *Public Health*. In this paper I have chosen to mention a few of the larger barnacles, and to suggest possible means of removal.

Indifference of Legislative and Appropriative Bodies is the first barnacle. At regular intervals we elect a body of representative men to the Legislature. With them lies the responsibility for bettering the welfare of the people through needed new laws, revision of old laws, and through appropriations of money with which to carry on the work of the official organizations of the state. Each is interested in doing his best for the people he represents, and in carrying out their wishes to the best of his ability. As public health workers it should be our job to make the people of our state aware of the value of adequate public health service. When this has been accomplished, we may expect the members of the Legislature to look with

more favor upon proposed public health laws, and to be eager to aid with increased appropriations for the work we are doing. We have no right to complain that legislative bodies frequently look with indifference upon requests for larger appropriations for public health and suggested revisions in the public health law. Instead we must look to ourselves and ask whether we have done our part in educating the people in the importance of widespread health service.

Uncertainty of Tenure of Office is a barnacle attached not only to public health in our own state, but in virtually all states. A public health program must necessarily be one of long-time planning. The best interests of the people cannot be served unless this is so. If public health officials upon taking office could feel reasonably sure of holding that office long enough to build a sound program and from there go forward we would see a vast improvement in the quality of public health work. The very nature of the work requires that the men and women in it be trained through

*Delivered at the 9th Annual Meeting of the Florida Public Health Association, Tallahassee, December 6, 1937.

long years for their job. It is a waste of the taxpayers' money if there is constant change in personnel in the health department, state, county or municipal. Changing oars in mid-stream has never been a good thing. This aptly applies to public health. What must be done about it? Should we say that this is a thing which the people should know without being told? I do not think we can say this. It is again a question of health education. The people must know of the work we are doing. They must hear over and over again of the value of public health to them individually and to their communities. I believe it is only in this way that we may hope to secure the support of public opinion, which we must have. People will eventually insist upon uninterrupted health programs once the majority is informed of the value of such a program.

This brings us to a third barnacle—*Indifference of the Public*. All of us have seen figures on the amount spent by the people of the United States each year for patent medicines. The figures run into the millions, and for those of us who know the benefits to be gained from widespread public health services, it seems scarcely understandable. Quack cures which make their inventors wealthy and only do the purchaser harm. If a fraction of that ill-spent money could be used in telling the public of the ways to avoid disease. Hundreds of thousands of dollars expended on sure-cures for syphilis and gonorrhea. Think of the educational campaign which could be carried forward on this amount. And yet it is difficult in these United States to obtain even the minimum tax levy for the formation of local health departments. The people do not demand the common benefits that medical science has discovered and made available. There should not be a child die needlessly of diphtheria now that we know it can be prevented by a simple immunization. No mother should die in child-birth

from lack of proper prenatal care. There should be no typhoid epidemics. In Florida there should be no malaria, no pellagra, no hookworm. The prevention of all these is within the people's grasp. Yet the many do not seize it. No one willfully wants to be ill. Why then, do they not demand that these diseases which could be prevented be stopped from taking such heavy toll. I believe the answer to be that information as to methods of prevention is not widespread. I believe that organized public health efforts to impart this information have not been skillful enough. We must continue to spread the gospel of disease prevention. The radio, newspapers, talks on public health, health education in our schools from the primary grades through our colleges. Every medium must be used to teach the importance of disease prevention. The people will hear our message if we give it surely and skillfully. Spasmodic campaigns will not be of much effect. We must keep everlastingly at it.

Another barnacle is *Lack of Complete Cooperation Between Public Health and Organized Medicine*. We have heard the phrase State Medicine for many years. We are hearing it to an even greater extent now. It is on the tip of many tongues, and many speak of it without knowing in any definite way what it implies. It seems to me that only the people directly concerned, that is, public health workers and private physicians, are going to solve this problem, or bogey. There is room enough for both, and no necessity for encroachment. The thing needed is an understanding of the functions of both professions. This I believe is slowly coming about. The teaching of the prevention of disease to the masses of people is the function of public health. The treatment of disease and medical advice to the individual is the function of the private physician. There will never come a time when the sick person does not want and need the expert ministrations of his family physician. A human being is not a

commodity which can be handled in large quantities with identical methods. Treatment that would be beneficial for one might very possibly harm another irreparably. The sick human being must have individual treatment. I believe that we in public health understand that very clearly. If there is misunderstanding about it, then we must by our word and actions do everything in our power to make our position and our intentions clear. The bogey will not stand the light of day.

Still another barnacle is the *Lack of Constant Professional Education*. If ever the time existed when it was possible to say upon leaving school "I am an educated man, I have finished my education", that time has certainly passed. The world moves swiftly, changes daily and there is no moment when we can afford to stop learning. Public health practice has undergone great changes. Within the last few years with the Social Security Act, the field of public health enlarged to such an extent that lack of trained personnel became plainly apparent. This necessitates constant study in public health methods. It means reading and talking of the newer ideas. Only with knowledge of the new can we safely compare the old and decide the best course. It means attendance at meetings such as this where we can talk over our common problems and benefit by the experience of other workers. It means being alert to the opening possibilities in our particular field. "To the swift belongs the race". If you have chosen to work in public health you have assumed a great responsibility and must constantly be prepared to meet it.

The last barnacle I am going to mention I have called the *Lack of Pioneer Spirit and Professional*

Pride. That public health is still in the pioneer stage we all know. There is much to be done and many obstacles to be overcome. The financial rewards are not large. Doctors, nurses, engineers, and all others who go into public health work must do so with the knowledge that the satisfaction will come from having a part in a work which is badly needed. We need the very best material that we can recruit. Public health work needs more than ever courage, an earnest desire to be of service, and great ability. We must be proud of our profession. I have heard workers say "I am only doing public health work for a while, then into private practice." This of course is not true of many, but I would like to see young people begin work in public health with the intention of sticking with it, making it their life's profession. To be constantly seeing the end of the rainbow in other fields is not good either for the work or the worker. Let us feel that here is a profession that will take all the skill and hard work that we are capable of giving it, and stick with it.

Barnacles are not pleasant things. Perhaps in this paper it has seemed as though public health work were all barnacles. We know this is not the case. But I believe in a convention of this sort where we are gathered to discuss our common problems, it is not amiss to speak of the things which we know should be improved as well as to speak of our accomplishments. In every case it has seemed to me that we must take most of the responsibility of ridding ourselves of these barnacles. There are many things that those outside of our profession could do to aid us. But things do not work out that way. We cannot expect others to fight our battles for us. We must clean our own ship.

PUBLIC HEALTH NURSING MARCHES ON*

THOMAS PARRAN, M. D.

Surgeon General, United States Public Health Service, Washington, D. C.

We need more nurses and health officers who can organize the resources of the community against today's dangers, not yesterday's, says Dr. Parran

Always it is pleasant to look backward when one has gone far. I think that most of you who have been here tonight for the N.O.P.H.N. birthday party know in rather intimate detail how greatly the scope of public health nursing has been enlarged since the birth of this organization 25 years ago. You know, too, how greatly the numbers of public health nurses have been expanded. By this year's count, we have 17,615 nurses doing public health work, which is a gain of 1700, or more than 10 per cent over the number employed in 1931; and very much greater than in 1932 and 1933, when the bottom dropped out of public health budgets. I think, also, you are keenly aware that in this country more than any other—with the possible exception of Canada—there is almost complete recognition among health officers and citizens alike of nursing as the spearhead of the whole public health movement. Dependence is placed upon it to advance new causes and to serve new needs. These things have been accomplished in the days of your youth and young adulthood as an organization. Of them we need not speak.

In spite of the fact that public health nurses only recently became a part of the Public Health Service, the problems which confront you are an integral part of our problems, nationally and in the states and the communities. Frequently in the past and even now in some sections of the country, the problem has been quantitative. For there are many situations in which any public health nurse is better than no nurse. Increasingly, of course, the problems have become qualitative. It is a never-ending fight to make sure that the new nurse for the job is qualified; that the new job for the nurse requires qualifica-

tion; and that the nurse who has evolved on the job shall have proper opportunity to grow mentally and to acquire proven techniques.

Among nurses as among health officers, however, I am sure that you have shared our distress at the repetition of episodes where technical qualifications are not enough. It takes more to make a good health officer than an M.D.—some years of apprenticeship, and a public health course in one of the several universities which offer sound post-graduate training. It takes more to make a good public health nurse than an R. N.—some years of nursing, and a public health nursing course in one of 17 schools which offer sound post-graduate courses. When we have learned the intangible *what* and *why* which separates the efficient from the futile (among those with similar technical backgrounds) we shall have learned the basic lesson in personnel management—or vocational adjustment, call it what you will—which needs to be learned promptly. For without able administrators and exponents of sound public health policy, without a considerable addition to the ranks of those who can both interpret and create, without adding year by year to the ranks of those qualified for leadership, I see the probability of a levelling-out in public health accomplishment.

SELECT POINTS OF EMPHASIS

Even now we find many a community where the major health emphasis seems to be upon the minor plagues. Except in a few areas the diseases of environmental insanitation are well behind us. The task of immunization grows steadily less diffi-

*Reprinted from *Public Health Nursing*, November, 1937.

cult. We need more nurses and more health officers who are realists; who can organize the resources of the community against today's dangers and not yesterday's. It cannot too often be reiterated that we must hold fast that ground that we have gained, but make the greatest *new* effort where the greatest saving in lives can be made. From the strictly professional point of view, this is sound policy for nurses. Until scientific research produces new knowledge for death-lighters to use, syphilis, tuberculosis, cancer, pneumonia, infant mortality, maternal mortality—these are the sectors where the saving of life can be greatest. The attack against them must be vigorous. It should make far more use of nurses than any health campaign has done in the past.

The program against tuberculosis was, of course, the first to be organized on a national scale; the first to use the three-horse team of doctor, nurse, and citizen. But as I go about over the forty-eight states and see the unevenness of effort and of results, the utter lack in whole states of facilities to find and treat tuberculosis, the time and money wasted in arresting active cases by sanatorium treatment when so frequently the patient goes back to the old trade, the old environment, and the final fatal breakdown; above all, when I see the listlessness with which we have approached the whole problem of tuberculosis in the Negro—I begin to think the time is ripe, if not for a reorganization, at least for a reorientation of the national tuberculosis attack. We need among all the states the steadier alignment and firmer integration of the official and voluntary agencies which a few states have achieved. We need new force—new driving power. We need to hitch up our "galluses" for a last, long lift at the burden. For the end is in sight. This is another plague we can set behind us, if we will. We have been congratulating ourselves because it has been driven down six places among the causes of death. Let's drop it into the subcellar with typhus and

yellow fever which to this nation have become insignificant. We can be rid of tuberculosis. We must be rid of tuberculosis. But the public health nurse must bear the brunt of the battle.

REDUCE MATERNAL AND INFANT DEATHS

Though great reductions have been made, we have always with us the needless deaths of infants and of mothers in childbirth. When the good care which some mothers and children have is available to all; when we educate mothers to know what good care is, and to know who is qualified to give it, and to require it for themselves and their babies, we shall be able to cut the present death rate by at least a half. What savings have been made have been largely through what the nurse has accomplished for us. What savings can be made are within her gift. Here, as in other victories to be celebrated tomorrow, the public health nurse must bear the brunt of the battle.

The national effort against cancer, as you know, is just beginning to take form and substance. When I appointed an Advisory Committee to counsel with us on new programs, I found that some of the busiest men of the nation—the most significant of the men of science—were glad to serve on it. There is wide interest in the provision of facilities for diagnoses and treatment, as well as for cancer research. With the leadership of Massachusetts and New York, the states are beginning to realize their responsibility for stemming the flood of needless deaths. There are still enough cancer cases for whom we can do nothing. For others we can do much. It is the moral obligation to save those whom we know how to save. We can do this if we find the patient early and give him expert treatment. To do this, we must have the courage and imagination of the well-trained nurse who will bear the brunt of the battle.

Like cancer, the national fight against syphilis, is in a formative stage. The task has barely begun in

any state or community. We still are tremendously self-conscious about syphilis. We use up so much courage in conversational outlets that there is little left to energize the practical activities of finding cases and giving them treatment, looking for sources, and making the determined effort to keep all cases under treatment until cured or harmless.

THE CLINIC "ASSEMBLY LINE"

I emphasize *good* treatment. During the last month, I visited a city not many hundred miles away where they are giving a great deal more treatment than at this time last year. I visited one clinic in which three doctors and a nurse gave treatments and handled records of almost 300 men and women in a two-hour session. Here stood this weary line of men and women sick with syphilis, packed tightly in two little hot rooms, inching along from table to table for the card record, the shot of arsphenamine, the injection of bismuth. Some of them had been waiting there long hours in order to be sure of a place far enough up in the line to get treatment that day. None of them had an opportunity to report symptoms or reactions to the doctor, none of them seemed to be differentiated from any other by the doctor. Usually he did not even look up when the patient slid the card on the desk or presented an arm for intravenous treatment. How could he look up and ask questions? This was the medical equivalent of a factory assembly line. "Move 'em along," was the one order of the day.

I suppose that sort of thing does some good. I don't know, I don't believe they knew. Similar scenes are familiar to all of you who do active field work. I mention it only to illustrate what, to my mind, is one of the chief dangers ahead for the whole syphilis program; and that is the prevalent idea that clinics of their very nature cannot give good medical treatment and need not give considerable treatment. The thrifty Swedes and Danes can show us that if we give any thought whatever to the relationship between cost and results, it is far cheaper to give good treat-

ment to the individual than to run a heterogeneous mass of individuals through a nondescript treatment mill. The individualistic British will tell us that personalized treatment, scrupulously sanitary and considerate of the privilege of privacy will go a long way to save us time in searching out new cases and prevailing upon old ones to remain under treatment.

Unless there is a vast transformation in our present methods of bringing together those who can supply medical and nursing care and those who need it, I see no other method than the clinic by which we can afford to supply from public or private funds the minimum of a year's treatments, costly drugs, and laboratory services to those sick of syphilis among the third of our population who are ill fed, ill clothed and ill housed. But I think I am not far wrong when I say that many of the syphilis clinics as now constituted are unfair to doctor, nurse, and patient, and benefit the patient but slightly. The few which are organized to supply good service are not sufficient to heaven the lump. No group sees so much of the wrong sort of clinic as do nurses. I know of no place in public health where the community nurse and the nurse social worker count so much in the community protection against syphilis. We need the vision and the persistence of the well-trained nurse to build a better program. She must bear the brunt of the battle.

CHALLENGE OF PNEUMONIA

For pneumonia control, the pot is just beginning to simmer. Again, New York and Massachusetts have led the way by initiating public support of the private physician in his year-in, year-out struggle with this most feared of human foes. At the present level of medical knowledge about pneumonia, I think it is agreed that our hope of reducing it lies in two things: first, prompt diagnosis, and administration of serum for all cases it will benefit; and second, good nursing for all cases. During these last years, the clinical authorities have

proven beyond a shadow of doubt, through evidence laboriously accumulated over the years and meticulously weighed in the balance, that the great scourge of pneumonia can be alleviated. It is only by the fullest exploitation of what we can do that we shall learn how to do more, how to be rid of it—as we know now how to be rid of tuberculosis as a public health problem if only we were to pursue to the fullest the methods we know. Here, as in all public health crusades, the nurse must bear the brunt of the battle.

One still occasionally finds those who inquire whether it is not poor policy to think of public health programs in terms of attacks-on-disease categories. If we set our three-horse team of doctor, nurse and citizen to pulling the dead-weight of syphilis, what will become of our school health program? If we put our community nurses to the care of pneumonia, how are we going to get our preschool children immunized against diphtheria?

I think that by the exercise of a moderate degree of common sense we can incorporate with the continued protective controls for the community a new and earnest effort against the plagues which now decimate its population. The introduction of the principle of the generalized service, in my opinion, was as important to public health nursing as the introduction of radium in the treatment of cancer. Both opened up magnificent opportunities for service which have been only partially explored. The Children's Bureau used a provocative slogan in a controversy some years back. They pleaded that we should not "dismember the child". I need not do special pleading before this audience, for I know your organization to be unanimously in favor of a generalized program. But certainly we must make the citizen members, and sometimes the doctors in our public health team, understand that the family health program must not be dismembered by a series of specialists each attacking as separate problems school health, infant wel-

fare, tuberculosis, communicable disease, nutrition, bedside care and a dozen matters which are of importance to the well-being of the family as a unit. Moreover I believe we could go farther than most generalized programs have gone; that we could and should wipe out the lines of demarcation between the public health nurses who restrict themselves rigidly to conversation and demonstration and the visiting nurses who care for the sick and attempt to educate by example as well as by precept. It seems to me that a next and needed step is for health departments to provide community nurses who will have responsibility both for prevention and for bedside care, as needed. I say health departments, because the present visiting nurse organizations are, for the great part, confined to the cities. In the rural areas, I see no way by which these needed services can be given except through public funds.

Further, almost one-half of present health department budgets already are expended for public health nurses. We are agreed that we need more good nurses, many more. We are likewise agreed that the health departments themselves need larger and better budgets if they are to do even a fair job in disease control. I think we need to face the fact, however, that appropriating hinders, polities aside, are generous to concrete services and little impressed by theoretical benefits. Public health nurses had their beginnings in the care of the sick poor. In many places nowadays they have swung so far in the opposite direction that they are of no earthly use to the sick poor. Suppose we get back to the middle of the road and combine both the concrete and the educational functions of a nurse in one valuable person. I think you would find it easier to get more nurses where we need them, and to carry the lamp of public health nursing into the dark places. Suppose, too, we detour the nursing specialists from direct work with the family and gently but firmly keep them in their useful place as consultants in the

community nurse. I firmly believe that not only the quantitative but the qualitative aspects of public health nursing, both the scope and impetus of the whole public health movement, would gain greatly by the simple expedient of following through consistently on the whole principle of the generalized nursing service. Let the public health or rather the community nurse be the answer to St. Paul's exhortation of "all things to all men". It is a large order, but she has filled large orders before and done it nobly.

Public health is a new specialty of medicine and nursing. As in all specialties, when the first excitement of acquiring new knowledge has passed, we begin developing new techniques for its application. Sometimes, both to doctors and nurses, the techniques begin to assume undue importance. They tend somewhat to obscure the human factors. We become detached, formalistic. We lose our hold upon the popular imagination. We lose awareness of our real function which has to do with life and death, and especially life.

I think in some places and among some very skillful workers this has been true of both public health medicine and public health nursing. We have, in some cases, standardized too soon. We have become content with 1930 or 1935 or 1937 models. We who are born of change, who came into the world to uproot the precedents of misery—we fear change, cling to precedent.

FEARLESS LEADERSHIP NEEDED

It is not that we do not think we are doing everything to gain popular support. During the last decade our techniques have included salesmanship. May I be forgiven for saying that sometimes it is too suave, too tactful, too self-conscious for effective functioning? I would only remind you that among the reasons why the light from the lamp of Florence Nightingale shone far was because she was known to be perfectly ready to throw it at anybody who stood in the way of righteous progress. She

is remembered for the good works of a saint, but she achieved these good works because she had a clear eye, a pungent tongue, and a heart so filled with wrath at needless suffering that she spared no one, no matter how highly placed, who might be responsible for it. Individually, there are few of us who can be Florence Nightingales. Our little voices would be lost in the contemporary din. Collectively, through the organizations which represent us, we can all have part in leadership. If we lead fearlessly, our good works, also will be remembered.

Just one more word. During this year and in the years immediately ahead it seems inevitable that public health will be competing for a larger share of smaller budgets with many very worthy projects in the cause of human welfare. Decent housing, better schools, better recreational facilities, more and more intelligent assistance for the aged, the unemployed, and the handicapped — these and other social advances are much needed. We would not retard them. They have deep human appeal. But as Paul DeKruif has said, none of these hears the cry of the meningitic child. We hear that cry; we hear daily the cries of agony we know how to relieve and prevent. We must help our citizen partner to hear that cry. He must share our faith that nothing in life can come ahead of the relief and prevention of human agony.

This is simple to say and hard to do. We must do it, for therein lies the whole of our educational function. One way is to make the citizen a partner in a real sense of the word — not just a lay member whose function is to raise money to get more members to raise more money. Money is important. The most competent health officer, the most skillful and devoted nurse—none of them can fight disease without money, any more than Napoleon himself could fight a battle without bullets. Money is important, but citizen partnership is more important. And service to human beings is most important of all.

BUREAU OF VITAL STATISTICS

EOWARD M. L'ENGLE, M.D., *Director*MARRIAGES, DIVORCES AND
ANNULMENTS

During the calendar year 1937, 25,660 marriages were performed in Florida as compared with a total of 24,211 for the previous year. The Legislature of 1927 made provision for the centralization of marriage and divorce records with the State Board of Health.

There were more marriages performed last year than in any year since the centralization of these records. In this period of eleven years,

the fewest marriages were performed in 1932, a total of 15,301.

There were 7,852 divorces granted in Florida during 1937 as compared with 7,002 for the previous year. The figure shown for 1937 represents the highest number of divorces granted for any one year, and the lowest number was 2,542 during 1932.

A total of 68 annulments were granted during 1937 as compared with 56 for the previous year. The lowest number for any one year since the enactment of the centralization law was for 1927, when there were 17 annulments granted.

Marriages Performed, Divorces and Annulments Granted,
Florida, 1927—1937

Years	Marriages	Divorces	Annulments
1937	25,660	7,852	68
1936	24,211	7,002	56
1935	21,670	5,167	47
1934	22,751	4,842	46
1933	18,205	3,532	23
1932	15,301	2,542	19
1931	17,336	3,563	26
1930	17,147	3,632	21
1929	18,198	3,773	20
1928	18,032	3,516	19
1927	18,602	3,965	17

BUREAU OF VITAL STATISTICS

Marriages Performed, Divorces and Annulments Granted, by
Counties, Florida, 1937

Counties	Marriages	Divorces	Annulments
State	25,660	7,852	68
Alachua	389	84	0
Baker	715	20	0
Bay	311	59	0
Bradford	153	20	0
Brevard	187	79	0
Broward	1,949	91	1
Calhoun	7*	13	1
Charlotte	153	33	0
Citrus	134	20	0
Clay	244	10	0
Collier	64	4	0
Columbia	268	40	0
Dade	2,283	2,182	23
DeSoto	97	11	0
Dixie	92	23	0
Duval	1,929	1,156	14
Escambia	887	252	3
Flagler	205	35	1
Franklin	94	11	1
Gadsden	437	13	0
Gilchrist	148	8	0
Glades	114	3	0
Gulf	58	6	0
Hamilton	237	34	0
Hardee	208	41	0
Hendry	68	13	0
Hernando	139	15	0
Highlands	122	23	0
Hillsboro	2,044	753	3
Holmes	176	25	0
Indian River	141	15	0
Jackson	414	46	0
Jefferson	216	15	0
Lafayette	93	12	0

*County Judge Made No Reports—Marriages Performed on Licenses Secured Elsewhere.

BUREAU OF VITAL STATISTICS

Marrriages Performed, Divorces and Annulments Granted, by
Counties, Florida, 1937—(Continued)

Counties	Marrriages	Divorces	Annulments
Lake	283	101	0
Lee	189	76	2
Leon	408	120	0
Levy	191	13	0
Liberty	49	4	0
Madison	229	27	0
Manatee	295	61	1
Marion	395	83	0
Martin	150	18	1
Monroe	147	41	0
Nassau	279	18	1
Okaloosa	291	28	0
Okeechobee	95	15	0
Orange	729	192	2
Osceola	276	33	0
Palm Beach	789	303	0
Pasco	347	34	1
Pinellas	1,018	389	0
Polk	1,036	370	6
Putnam	256	42	0
St. Johns	451	64	2
St. Lucie	190	48	1
Santa Rosa	485	27	0
Sarasola	253	89	0
Seminole	381	59	1
Sumter	182	63	1
Suwannee	198	41	0
Taylor	176	21	0
Union	118	7	0
Volusia	482	242	2
Wakulla	112	6	0
Walton	169	22	0
Washington	235	30	0

"THE THIRD ESSENTIAL"

The sixth annual Graduate Short Course for Doctors of Medicine, sponsored by the Florida Medical Association, in cooperation with the State Board of Health, will be held in Daytona Beach, June 27 to July 2. All sessions of the Short Course will be at the Osceola Hotel, which is offering attractive rates to the physicians attending the Course and their families.

Registration will begin at 8:00 o'clock Monday morning, June 27. Anyone wishing to register ahead of time may do so through Dr. G. C. Tillman, Gainesville. A registration fee of \$5.00 will be charged.

One of the reasons Daytona Beach was selected for the short course this year was the varied type of recreation it offers. It is the hope of the Committee that the doctors will bring their families and make the week one of rest and relaxation as well as study. In addition to the famous beach, those attending may enjoy golf, for there is a course adjoining the hotel, and fishing trips may be arranged if desired.

Listed below is the Faculty of the Short Course:

MEDICINE

Dr. Maurice C. Pincoffs, Professor of Medicine, University of Maryland School of Medicine, Baltimore.

SURGERY

Dr. W. Emory Burnett, Associate Professor of Surgery, Temple University Medical School, Philadelphia.

OBSTETRICS

Dr. J. O. Arnold, Professor of Obstetrics, Temple University School of Medicine, Philadelphia.

PEDIATRICS

Dr. Alexander J. Schaffer, Department of Pediatrics, Johns Hopkins School of Medicine, Baltimore.

GYNECOLOGY

Dr. R. J. Crossen, Assistant Professor of Obstetrics and Gynecology, Washington University School of Medicine, St. Louis.

NEUROPSYCHIATRY

Dr. Beverley R. Tucker, Professor of Neuropsychiatry, Medical College of Virginia, Richmond.

ADMINISTRATIVE OFFICERS FLORIDA MEDICAL ASSOCIATION

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SIXTH ANNUAL GRADUATE SHORT COURSE FOR DOCTORS OF MEDICINE

Hour	MONDAY June 27	TUESDAY June 28	WEDNESDAY June 29	THURSDAY June 30	FRIDAY July 1	SATURDAY July 2
8:00 a. m.	Registration Oacoola Hotel					
9:00 a. m.	PEDIATRICS "What are the Pediatric Emergencies?" DR. SCHAFFER	PEDIATRICS "The Commoner Neurologic Problems of Pediatrics" DR. SCHAFFER	PEDIATRICS "The Anamias of Infants and Children" DR. SCHAFFER	GYNECOLOGY "Pelvic Infection, Endometriosis" DR. CROSSEN	GYNECOLOGY "Gynecological Endocrinology" DR. CROSSEN	GYNECOLOGY "Recums of Treat- ment and Prophylaxis of Malignancy of Uterus" DR. CROSSEN
10:00 a. m.	NEURO- PSYCHIATRY "How May Physicians Best Recognize Neuro- psychiatric Con- ditions?" DR. TUCKER	NEURO- PSYCHIATRY "Psychoneurosis and the Emotion-Reason Balance" DR. TUCKER	OBSTETRICS "Practical Problems in Pre- natal Care" DR. ARNOLD	SURGERY "Significance of Gastro-Intestinal Hemorrhage" DR. BURNETT	SURGERY "The General Practitioner's Thoracic Surgery" DR. BURNETT	SURGERY "Hypothyroidism" DR. BURNETT
11:00 a. m.	RECESS	RECESS	RECESS	RECESS	RECESS	11:00 - 12:00 OBSTETRICS
11:30 a. m.	MEDICINE "Functional Circulatory Syndromes" DR. PINCOFFS	MEDICINE "Obstructions in the Air Passages" DR. PINCOFFS	MEDICINE "The Toxicology of Certain Common Drugs" DR. PINCOFFS	OBSTETRICS "Dry- Clinic' on Problem Cases in Everyday Obstetrics" DR. ARNOLD	OBSTETRICS "The Significance of Insignificant Signs and Symptoms" DR. ARNOLD	"Wherein We ARE Making Progress" DR. ARNOLD 12:00 - 1:00 SURGERY "Infections of the Hand" DR. BURNETT
12:30 p. m.	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH	
2:00 p. m.	NEURO- PSYCHIATRY "Encephalitis and Its Sequelae" DR. TUCKER	NEURO- PSYCHIATRY "Upper and Lower Motor Neuron Conditions" DR. TUCKER	NEURO- PSYCHIATRY "Convulsive States —Cause, Classifi- cation, and Care" DR. TUCKER	SURGERY "The Acute Abdomen" DR. BURNETT	SURGERY "Plastic Surgery in Daily Practice" DR. BURNETT	
3:00 p. m.	RECESS	RECESS	RECESS	RECESS	RECESS	
3:15 p. m.	MEDICINE "Heart Disease After Fifty" DR. PINCOFFS	MEDICINE "The Syndromes of Intravascular Hemolysis" DR. PINCOFFS	MEDICINE "The Preventive Aspects of Paralysis" DR. PINCOFFS	GYNECOLOGY "Retrodiscal- ment, Prolapse" DR. CROSSEN	GYNECOLOGY "Gynecological Endocrinology" (continued) DR. CROSSEN	
4:15 p. m.	RECESS	RECESS	RECESS	RECESS	RECESS	
4:30 p. m.	PEDIATRICS "Heart Disease in Infants and Children" DR. SCHAFFER	PEDIATRICS "Endocrine Therapy in Pediatrics" DR. SCHAFFER	OBSTETRICS "Prophylactic Measures in the Conduct of Labor" DR. ARNOLD	NEURO- PSYCHIATRY "The Newer Treatments in Neuropsychiatry: Hyperexia, Insulin Shock, Metrazol, and Narcotism" DR. TUCKER	OBSTETRICS "Eight Years of Experience in the Rational Treatment of the 'Toxemia' of Pregnancy" DR. ARNOLD	
8:00 p. m.		SYMPOSIUM "The Vitamines"				

WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



BUREAUS AND DIVISIONS AT JACKSONVILLE

Directors

Accounting.....	G. Wilson Baltzell
Dental Health.....	Lloyd N. Harlow, D.D.S.
District and County Health Work.....	A. B. McCreary, M. D.
Drug Inspection.....	M. H. Doss
Engineering.....	G. F. Catlett, C. E.
Epidemiology.....	Dan N. Coan, M. D.
Health Education.....	Elizabeth Behnenberger
Laboratories.....	J. N. Peterson, M.D.
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Public Health Nursing.....	Ruth E. Mattinger, R. N.
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Tuberculosis.....	A. J. Lupton, M. D.
Vital Statistics.....	Edward M. L'Engle, M. D.

DIRECTORS FULL TIME COUNTY HEALTH UNITS

Leon County.....	L. J. Graves, M.D.
Wakulla County.....	L. J. Graves, M.D. (Acting)
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Jackson County.....	R. N. Joyner, M.D.
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Highlands County.....	C. W. Poase, M. D. (Acting)
Orange County.....	W. P. Rice, M. D.

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(MONROE CO. HEALTH
UNIT)

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Dist. 3. Ocala.....	D. C. Will, M.D.
Dist. 4. Bartow.....	C. W. Pease, M.D.
Dist. 5. West Palm Beach.....	Uland H. Dunn, M.D.

MALARIA RESEARCH

Mark F. Boyd, M. D., Tallahassee..... Rockefeller Foundation

ENTOMOLOGY

W. V. Klag, Ph. D., Orlando..... U. S. Bureau Entomology



FLORIDA

HEALTH NOTES



IN THIS ISSUE

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State Board of Health Library

. . . Time marches on, leaving behind those for whom "commencement" day marks the end of learning. Medical science is an especially rapid marcher and the social sciences are fairly plunging ahead in the present day. The public health worker who fails to keep step: who does not grow with, and faster than, the job, soon becomes a clog to himself and the Department.

H. E. KLEINSCHMIDT, M. D.*

*"Keeping Up with the Job," THE HEALTH OFFICER, November, 1937.

FLORIDA HEALTH NOTES

Official Monthly Publication of the
STATE BOARD OF HEALTH

JACKSONVILLE, FLORIDA

Est. 1890

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State Health Officer

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No. 7

THE STATE BOARD OF HEALTH AND COUNTY HEALTH UNITS

W. A. McPHAUL, M. D.
State Health Officer

Florida will not have adequate health service until every county is served by a local, full-time health department. The Federal government is committed to this opinion, and for this purpose the Congress allotted a sum of money, to be distributed by the State Board of Health to assist counties in establishing local health departments. Every state in the United States has received a portion of the money allotted for this purpose. In order to make sure that proper health service would be assured in every county thus assisted, the United States Public Health Service and the United States Children's Bureau, working with the State Health Departments, have established certain minimum requirements for the doctors, nurses, and sanitary officers who may be appointed to the local health departments. According to the County Health Unit Law of Florida, the county commissioners, upon approval of the State Board of Health, appoint the personnel of the local health department. The State Board of Health in approving such appointments, observes the minimum requirements as specified by the Federal government.

In allocating a sum of money to any county in Florida, it is the purpose of the State Board of Health to assist that county in establishing a health department. The health department, once established, belongs to the county, serves only the county. The major portion of moneys expended in support of the county health department must always be paid from county funds.

A full-time health department is a wise investment of money, unquestionably so in Florida, a tourist state, where a healthful environment which includes pure water supply, proper sewage disposal, correct school sanitation, clean restaurants, proper garbage disposal, means certain increase in winter visitors. A county which cares enough about its people and its property to see that it is supplied with the best public health service available is a good county to live in, to buy property in, to invest in. A county health department is a paying proposition. It returns dividends in human health and happiness, far more important than those which can be reckoned in dollars and cents, but from a purely financial stand-

point, a county health department pays.

It is not our purpose to say that a county health department will automatically bring the millennium, but it seems only common sense to take advantage of the benefits which medical science has made possible. Each man

is concerned with his individual health, but the water he drinks, the food he eats, the schools his children attend, and the health of his neighbor are his concern also. Individual health is dependent upon public health. A county health department is the guardian of the public health.

FUTURE CITIZENS

LLOYD N. HARLOW, D. D. S., *Director*
Bureau of Dental Health

A great event, possibly the greatest that has ever taken place, will occur in the lives of thousands of six-year old children this fall. These children will have reached the age when it is necessary to start to school.

For days Mother has been buying new shoes and clothing. The beauty parlors have been humming with activity—permanents and end-curls for little daughter. Son has been to the barber shop to receive a new hair cut, and in honor of the event the barber has added nice-smelling lonic on his hair, brushing it down smooth and sleek.

The big day arrives. Mother scrubs the six-year olds until their eager faces shine like new silver dollars. The new dresses and suits are readjusted, the curls arranged and the hair brushed and combed. Immaculate in appearance—the girl happy and the boy feeling rather a sissy—Mother takes them to the great adventure of school.

Mother tells the teacher of the little peculiarities of each; she admonishes Jane and Dick to be good and to mind the teacher. Thinking she has performed her duty, Mother leaves the children together with all the responsibilities with the teacher, little realizing that she has overlooked the most important part of preparing her children for school—a health check-up to see if the children are physically fit to assimilate the knowledge which the teacher has to give.

If mothers will realize the import-

ance of taking a child to the physician and the dentist for a complete check up and correction before being placed in school, they will save the child possible sickness and pain, save themselves worry and money, and assist the teacher in the education of their children.

Under even the best circumstances the teacher with a room full of children to teach has a real job. But if she must try to teach children who are sick her task is almost impossible. It is unfair to the teacher and to the child.

In districts where a health check-up and corrections have not been made, it is found that about half of the children entering the first grades are repeaters the second year of school because of physical handicaps that could have been corrected before they began school.

The Bureau of Dental Health is concerned with those physical handicaps caused by dental disease, and as 85% of the American people are suffering from decayed teeth and diseased gums we are concerned with the majority of the children now starting to school.

The mistaken idea of many that the first or deciduous teeth are unimportant, has brought many a hardship to the unsuspecting child. If the child's teeth are allowed to decay and abscess, he is taking pus into the system—the same kind of pus that is discharged from an open sore on the hand, arm or leg. These poisons must

be thrown off and if not taken care of, will cause destruction of the tissues of the kidneys and other vital organs of the body. So often we hear, "Oh, that's just a gum boil." That gum boil is an abscess with an opening that will not heal and that needs the attention of your dentist. Rheumatism, neuritis, lumbago, sciatica and diseases of the eye and heart are sometimes caused from abscessed teeth. Backward and problem children are oftentimes the result of those same "gumboils." A child trying to fight disease and throw it from the body cannot be expected to have a brilliant mind or a cheerful disposition.

The child's teeth and mouth should be kept in a clean, healthy condition so that the first teeth may be retained until the normal time of replacement by the second teeth. If the first teeth have to be extracted before they have served their normal life, the second teeth will come through too soon and, not having the normal development will naturally be inclined to decay sooner. Extracting these first

teeth before their natural life will cause the jaws to be underdeveloped also, and cause crooked, unsightly teeth.

The child should visit the dentist before starting to school even though not apparently in need of dental care. Many hidden defects may be found in the child's mouth by the dentist, which if taken care of in time will save the child's teeth, as well as a large fee for dental services. The modern dentist wants to practice preventive dentistry and save the teeth the child now has, rather than to restore the tissue that has already been destroyed. A proper diet is the best known preventive we have for dental defects and disease. The dentist should be consulted as to the proper diet and care for each particular child's teeth.

As good health is essential for an attentive mind so good teeth are essential for good health. All children should have a check up before entering school, in order that they may have an equal chance to start the great adventure of life.

SWIMMING POOLS

FRED A. SAVAY, Assistant
Bureau of Engineering

Swimming is becoming more and more popular each year. The records of the State Board of Health bear out this statement. But swimming, like many other worthwhile activities of humans, has its health problems.

Bathing place sanitation was early recognized as a health problem by the State Board of Health, and through its efforts Florida was the second state in the Union to enact legislation on this matter, by the passage of an Act, known as Chapter 7825, Laws of Florida No. 43, 1919. This law

provides that the State Board of Health shall have supervision over the sanitation, healthfulness, and general cleanliness of public swimming pools, bath houses, and bathing places. In addition, it empowers the Board to make and enforce regulations pertaining thereto. This Act makes it mandatory for a permit to be secured from the State Board of Health before any swimming pool is constructed or operated, and provides for the permit to be revoked if sanitary regulations are not fully

complied with. Representatives of the State Board of Health are authorized to enter pool premises at any and all reasonable times to investigate and determine whether or not provisions of the Act are being violated. The Act further declares an unclean or insanitary swimming pool to be a sanitary nuisance, and penalties are provided if the pool is found to be operating. This law has been found to cover the matter satisfactorily.

The matter of bathing place sanitation in many states is a problem only during the summer months, however in Florida, where swimming is possible the year around, the artificial pools, as well as the bath houses of bathing beaches are a matter of concern at all times.

Operating under Rule 42, made in accord with provision of the State Law, the State Board of Health through its Engineering Bureau has direct control over all public swimming pools in the state. Annual permits for operation are granted when requirements of this Rule have been complied with, and when signed applications have been received from the owners or operators. These applications cover every item of pool and dressing room detail as well as water supply and operation features.

These applications are held and pertain to the pools as long as no changes are made. Should improvement or alterations occur or should the pool change hands, a new application is required.

Provisions of Rule No. 42 cover the following:

1. Source of water supply.
2. Quality of the water and bathing load.
3. Pool construction, depths, washing, etc.

4. Arrangement to prevent contamination of water in the pool, curb, scum gutter, walkways.
5. Dressing rooms, cleanliness and arrangement.
6. Other appurtenances, drinking fountains, showers, lavatories, toilets and care of suits.
7. Control of communicable disease by refusing use of pool to persons suffering from skin abrasion or eruption, eye, ear, nose or throat infections.
8. Provides for inspection of the pool at frequent intervals by State Board of Health representatives and reports of pool operation to be submitted regularly by the pool management.

For the 1938-39 season, beginning June 1 of this year, seventy-five swimming pools have received permits to operate. A list of permitted pools has been compiled and is ready for distribution.

One of the most important forward steps in connection with improved sanitary conditions of swimming pools and other public bathing places has been the activity of the Joint Committee on Bathing Places, composed of outstanding members of the American Public Health Association and the Conference of State Sanitary Engineers. After years of intensive study, this committee has developed a schedule of fair and practical standards covering pool construction and operation. These standards have been universally adopted by health officials, pool operators, and designers. Fundamentally our state regulations conform with this committee's recommendations, especially as they concern construction and operating details.

BUREAU OF VITAL STATISTICS

EDWARD M. L'ENGLE, M. D., *Director*

INFANT MORTALITY

During the year 1937, there were 1,759 deaths of infants under one year of age in Florida giving a mortality rate of 59.7. This is slightly higher than the rate for 1936 which was 59.0.

In both 1936 and 1937, almost exactly one-half of these deaths occurred during the first week of life,

the figures being 50.6% in 1936 and 50.5% in 1937.

The following table indicates the rates by color and by years from 1917 to 1937, inclusive. Information as to the number of infant deaths and infant mortality rates is also shown by color and by counties for 1937.

Infant Mortality—Deaths of Infants Under One Year of Age and Rates per 1,000 Live Births, by Color, Florida, 1917-1937

Years	TOTAL		WHITE		COLORED	
	Deaths	Rates	Deaths	Rates	Deaths	Rates
1937	1,759	59.7	960	46.7	799	89.5
1936	1,664	59	975	49	689	83
1935	1,730	62	986	50	744	88
1934	1,818	68	1,011	54	807	100
1933	1,619	63	878	50	741	92
1932	1,680	61	940	50	740	86
1931	1,737	64	979	52	758	91
1930	1,729	64	928	50	801	95
1929	1,766	66	953	52	813	95
1928	2,000	67	1,123	54	877	96
1927	2,303	68	1,336	56	967	95
1926	2,614	75	1,545	62	1,069	108
1925	2,179	74	1,219	61	960	104
1924	2,182	82	1,259	70	923	107
1923	1,822	78	1,017	65	805	106
1922	1,691	77	997	65	694	104
1921	1,770	80	1,001	66	769	112
1920	1,835	94	1,031	76	804	134
1919	1,659	89	927	72	732	126
1918	1,947	107	1,148	91	799	145
1917	1,897	106	1,087	86	810	155

BUREAU OF VITAL STATISTICS

Infant Mortality—Deaths of Infants Under One Year of Age and Rates per
1,000 Live Births, by Color, by Counties, Florida, 1937

COUNTIES	TOTAL		WHITE		COLORED	
	Deaths Under 1 Year	Rates per 1,000 Births	Deaths Under 1 Year	Rates per 1,000 Births	Deaths Under 1 Year	Rates per 1,000 Births
State	1759	59.7	960	46.7	799	89.5
Alachua	64	80.5	21	51.5	43	111.1
Baker	8	40.6	5	36.2	3	50.8
Bay	18	37.7	14	35.2	4	50.6
Bradford	6	29.1	4	27.2	2	33.9
Brevard	13	69.9	7	58.8	6	89.6
Broward	41	84.0	11	46.0	30	120.5
Calhoun	11	53.1	11	62.1	0	—
Charlotte	0	—	0	—	0	—
Citrus	12	118.8	7	107.7	5	138.9
Clay	7	70.0	3	44.8	4	121.2
Collier	3	63.8	0	—	3	300.0
Columbia	34	91.2	19	87.2	15	96.8
Dade	173	54.5	106	43.6	67	89.9
DeSoto	10	56.5	7	46.7	3	111.1
Dixie	4	33.3	4	47.1	0	—
Duval	181	58.3	102	47.1	79	84.0
Escambia	99	78.1	68	66.0	31	130.8
Flagler	4	78.4	0	—	4	108.1
Franklin	8	57.1	2	22.5	6	117.6
Gadsden (Ex.)	50	85.8	13	59.1	37	101.9
State Hospital	2	153.8	0	—	2	666.7
Gilchrist	3	24.2	2	20.6	1	37.0
Glades	3	81.1	2	71.4	1	111.1
Gulf	4	40.8	3	51.7	1	25.0
Hamilton	9	35.3	3	18.6	6	63.8
Hardee	5	28.2	5	29.9	0	—
Hendry	5	75.8	4	85.1	1	52.6
Hernando	11	93.2	5	60.2	6	171.4
Highlands	11	58.2	6	41.4	5	113.6
Hillsboro	139	55.5	101	50.8	35	76.9
Holmes	13	38.0	13	39.3	0	—
Indian River	9	53.9	5	41.3	4	87.0
Jackson	46	58.6	24	51.2	22	69.6

BUREAU OF VITAL STATISTICS

Infant Mortality—Deaths of Infants Under One Year of Age and Rates per 1,000 Live Births, by Color, by Counties, Florida, 1937—(Continued)

COUNTIES	TOTAL		WHITE		COLORED	
	Deaths Under 1 Year	Rates per 1,000 Births	Deaths Under 1 Year	Rates per 1,000 Births	Deaths Under 1 Year	Rates per 1,000 Births
Jefferson	28	91.8	2	28.6	26	110.6
Lafayette	5	57.5	4	49.4	1	166.7
Lake	35	71.7	12	36.3	23	146.5
Lee	12	38.5	10	38.5	2	38.5
Leon	39	65.7	10	41.0	29	82.9
Levy	14	64.8	10	68.5	4	57.1
Liberty	11	122.2	10	166.7	1	33.3
Madison	31	83.3	7	38.7	24	125.7
Manatee	18	46.8	7	28.9	11	76.9
Marion	34	63.3	12	50.6	22	73.3
Martin	2	33.3	1	28.6	1	40.0
Monroe	8	39.6	5	32.3	3	63.8
Nassau	14	87.0	4	44.0	10	142.9
Okaloosa	16	55.6	11	43.1	5	151.5
Okeechobee	4	74.1	3	65.2	1	125.0
Orange	48	53.8	29	42.4	19	90.9
Osceola	8	56.7	4	37.0	4	121.2
Palm Beach	64	70.3	28	51.0	36	99.4
Pasco	17	68.3	12	58.0	5	119.0
Pinellas	34	34.9	25	33.3	9	40.2
Polk	74	50.4	47	41.0	27	83.0
Pulnam	19	53.7	11	48.9	8	62.0
St. Johns	20	58.5	6	29.3	14	102.2
St. Lucie	11	58.8	5	42.4	6	87.0
Santa Rosa	18	53.1	13	45.5	5	94.3
Sarasota	13	55.8	5	29.8	8	123.1
Seminole	26	80.7	11	75.0	15	84.7
Sumter	6	35.1	3	30.0	3	42.3
Swansee	31	75.2	17	63.9	14	95.9
Taylor	14	78.7	8	77.7	6	80.0
Union	8	79.2	7	80.5	1	71.4
Volusia	39	55.3	19	38.5	20	94.8
Wakulla	3	34.5	1	23.8	2	44.4
Walton	17	63.7	12	54.8	5	104.2
Washington	12	42.4	9	40.5	3	49.2

FAMOUS DISCOVERIES OF FAMOUS PHARMACISTS

ANTON HOGSTAD, JR., *Chairman*
National Pharmacy Week Executive Committee

The pharmacist has tendered mankind many truly great gifts. One of the greatest of all discoveries by pharmacists was that of morphine, the active medicinal principle of the opium poppy of the orient. This epoch-making discovery was made by Friederich W. Serturner in 1816. Without morphine, the medical profession would not have advanced as it has in the past. True it is that there are many synthetic products prepared from coal tar at the command of the physician, but nevertheless morphine stands supreme in its class. To date the chemist has not succeeded in preparing synthetic morphine and it may be many years before this accomplishment has been effected.

Another valuable constituent of opium is that of *codeine*. It is chemically and pharmacologically related to morphine but its action is much milder and it is widely employed by the physician to alleviate irritation and procure rest. Codeine, just as morphine, was discovered by a pharmacist, Robiquet.

A French pharmacist, Bernard Courtois, while experimenting on seaweeds, noticed that purplish-colored fumes arose from the mixture in the vessel on the table before him. Through this accidental discovery, mankind was presented with that great gift, *iodine*, which today ranks supreme as one of the most important of all antiseptics and which in addition to its antiseptic action, is used for a number of complex and obscure ailments that defy other forms of treatment. During the past decade or so many antiseptics have been developed, but iodine like that of morphine still commands a place of first rank in its class.

We are all familiar with *hydrogen peroxide*, frequently referred to simply as peroxide. This medicinal

preparation was the result of scientific investigation on the part of Thenard, a French pharmacist, in 1818.

Atropine, the active constituent from belladonna, or "deadly nightshade," was discovered by a pharmacist, Brandes. Atropine is a truly important drug, possessing a very wide range of usage in medical practice. It dilates temporarily the pupil of the eye, so as to enable the eye specialist to make a proper examination of the interior of the eye when required.

One of the greatest pharmacists of all times was Scheele. Working independently of Priestly and Lavoisier this famous pharmacist discovered *oxygen*. Scheele likewise discovered *chlorine*, the gas employed during war times, constituting one of the poisonous gases and one which has been employed during times of peace as an agent to relieve colic. Scheele discovered *phosphoric acid* from bones, *tartaric acid* from the substance known as argol or crude potassium cream of tartar found as a sediment in wine casks. He is also credited with the discovery of *hydrofluoric acid*, a chemical reagent so powerful that it must be kept in specially prepared wax bottles, for it readily attacks glass. Because of this property, it is widely used in the etching of glass.

Antoine J. Balarin, a pharmacist, first prepared *bromine* from salt gathered from a salt marsh, thus paving the way for the preparation of a rather extensive list of bromides of various kinds used in medical practice.

From the East Indies comes a very interesting drug known as *aur vomica*, which translated, means "vomit nut." From this important drug which has also been assigned the names of "dog button" and "Quaker

button," as well as "poison nul," Pelletier, a French pharmacist working in conjunction with another pharmacist, Caventou, extracted that powerful medicinal substance known as *strychnine*.

Quinine was discovered in cinchona or quinine bark by two French pharmacists, Pelletier and Caventou in 1820. Quinine is a specific remedy for the treatment of malarial fever.

Common, every-day *aromatic spirits of ammonia*, prescribed by many physicians and kept in the majority of home medicine cabinets was developed through the efforts of the pharmacist, Jacob Sylvius.

It was a pharmacist, Guillaume Francois Rouelle (1672-1731) who was the first to classify chemical compounds into acid, basic and neutral groups, thus paving the way for modern chemical methods of determining the degree of alkalinity and acidity in place of the older litmus paper method.

Potassium acetate, an important medicine but little known to the general public, and widely prescribed by physicians, was first prepared by a pharmacist, Mueller, in 1610.

One of the most important of all procedures in pharmaceutical practice is the one known as *percolation*, by means of which the pharmacist prepares medicines known as tinctures, fluid extracts, and extracts. This important procedure was developed by Boullay, a pharmacist. Boullay is also credited with the discovery of *picrotoxin* the active constituent of the drug known as fish berries, a drug employed in the combating of body parasites.

During the course of the past decade great advances have been made not only in chemistry, medicine and pharmacy but also in all branches of biological sciences and many of the arts through the agency of what is known as *colloidal chemistry*. Before the introduction of this newer acquisition to the science of chem-

istry, the chemist was chiefly concerned with the constitution of matter. Colloidal chemistry is not especially concerned with constitution of matter but deals rather with the so-called "particular state of being of matter" involving the nature of the electric charge of matter, particle size, plasticity, and other physico-chemical phenomena. A leading medical authority in this country stated a few years ago that the future of medicine resides in the colloidal realm. The foundation of this great development, which is doing so much at the present time and offers tremendous possibilities for the future, has in large measure been based on the scientific investigations of a Cincinnati pharmacist, John Uri Lloyd.

During the course of the past decade many advances have been made in American pharmacy. The course of instruction now comprises four years. In addition to teaching duties pharmacy teachers throughout the country are conducting scientific investigations along many lines in modern, well equipped pharmaceutical laboratories which involve botanical, chemical, pharmaceutical and pharmacological equipment.

Many of the colleges of pharmacy maintain splendid medicinal plant gardens to provide their researchers fresh and authentic medicinal plant materials for scientific investigations. In the past the majority of scientific investigations dealing with medicinal plants have been conducted on dried and imported materials, excluding, of course, materials derived from our native medicinal plants. With fresh, authentic and properly dried materials at his command, the pharmacist of the future, engaged in scientific pursuits in these modern laboratories, will carry on as the pharmacists who gave to the world such great gifts as morphine, codeine, quinine, iodine, bromine, and a vast array of many other important medicinal substances. Research work of this charac-

ter, especially the type dealing with the study of a medicinal plant, frequently requires many years before results can be achieved, for plant chemistry is a difficult and complex study, and the one conducting the investigations must be well versed in many of the sciences.

The pharmacist's work will con-

tinue as it has in the past, for he occupies a position of importance and responsibility in that interesting trinity comprising the physician, the patient and the pharmacist. All three must fulfill the parts assigned them, in order that man may enjoy the great gift of health.

THE PHYSICIAN SHOULD KNOW WHO FILLS HIS R^{xs}

M. H. Doss, Chief Inspector

Division of Drug Inspection, Narcotic Service

Most physicians realize the importance of having their prescriptions properly filled by a qualified person. The qualified registered pharmacist is the only person permitted by law to do this; however, too often the Division of Drug Inspection, Narcotic Service, of the State Board of Health is called upon to investigate and criminally prosecute persons for practicing pharmacy without being qualified or registered by the State Board of Pharmacy.

In many cases the local physician is perfectly aware of the fact that the person compounding his prescriptions is not qualified to do, yet he continues to permit his patients to take his prescriptions to him. This physician is assisting the man in violating the law. A registered pharmacist would not think of calling upon some unregistered quack, if he needed a doctor!

The physician could completely prevent unqualified persons from filling prescriptions and violating the

law, if he would refuse to allow his prescriptions to be filled in stores where unregistered men are known to be employed and allowed to practice. No drug store operator would allow an unregistered man to practice in his store if he thought the physicians objected.

The physician owes this cooperation to his state, his patient, and his profession.

The Division of Drug Inspection, Narcotic Service, which is supported financially by the pharmacists of this state, investigates and criminally prosecutes many unregistered persons practicing medicine in the state each year at no cost to the physicians or to the medical association. The physicians' cooperation in the enforcement of the drug and narcotic laws by not allowing unregistered and unqualified persons to compound their prescriptions would be greatly appreciated by the ethical pharmacists of this state, as well as the Division charged with the enforcement.

BOOK REVIEW

HOW TO LIVE by Irving Fisher, L.L.D., and Haven Emerson, M. D., N. Y. Funk & Wagnalls, 1938.

The sub-title of this book is *Rules for healthful living based on modern science*. The present edition is the 20th. The book was first published in 1915. Perhaps the secret of the constant popularity of *How to Live* lies in its plausible presentation. Spartan living and diet regimes are recommended—but so simply and so conclusively that the average modern will be convinced, at least until the glow of close contact with the book has receded. The authors present their theme, give facts and cases to prove it, and leave the rest gracefully to the individual will of the reader. To quote from the preface, "Only by interested, voluntary, personal observance of the rules of good health . . . will mass improvement in individual and social habits affecting health be brought about . . ."

The reading is divided into four sections: *Our Exterior*, in which is discussed the Functions of the Skin, Clothing, Housing, Outdoor Living, and Bathing; *Our Interior*, wherein we read of Eating by Instinct, Dietetic Science, Poisons, Mouth Hygiene, Cotton Hygiene, and Infection; *Our Behavior*, which speaks of Work Hygiene, Exercise and Recreation, Relaxation and Sleep, Serenity and Poise; and *Hygiene in General*, which is part four of the book and contains chapters on Individual Hygiene, Public Health, the Possibilities of Hygiene.

This new edition has 32 appendices, all written by specialists, on various aspects of food and drink, exercise, disease. Among these are "*Meats in the Diet*," by E. V. McCollum, "*Alcohol*," by Haven Emerson, "*Tobacco*," by Emil Rogen, "*The*

Effects of Strong Emotions on the Body," by Walter B. Cannon, "*Syphilis and Gonorrhea*," by R. A. Vonderlehr, "*Prevention of Heart Disease*," by Hugh H. Young, "*Eugenics*," by Charles B. Davenport.

The last article is by the senior author, Irving Fisher, and is entitled "*Some Examples of Vitality*." These are actual accounts of four physicians who have practiced in some degree the principles expounded in *How to Live*. The results are worth careful consideration.

The public health worker is a believer in individual hygiene, but also knows the necessity for organized public health and community hygiene. The authors of *How to Live* are both actively engaged in the fields of public health and sociology and nowhere has the case for public health been more aptly stated than in this paragraph from the book: "No matter how thoroughly an individual may care for his own health, he will find it almost impossible at times to avoid infections without the organized help of the community in which he lives. He may keep his windows open, screen his house, leave no tin cans about his kitchen door to breed mosquitoes. But if his city's water supply is contaminated, if neighboring malarial swamps are not drained or covered with oil to prevent the breeding of mosquitoes, if flies contaminate food before it comes to his door, if the food contains disease germs or dangerous preservatives, if his next door neighbor visits him and leaves some of these infections behind, all his personal defenses will hardly be adequate. What can the individual do? He can take an active interest in health legislation and administration."

The book is a valuable contribution to public health literature and is recommended for reading by all public health workers.

MAGAZINES CURRENTLY RECEIVED IN THE STATE BOARD OF HEALTH LIBRARY*

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| American Heart Journal | Journal of Infectious Diseases |
| American Journal of Cancer | Journal of Juvenile Research |
| American Journal of Digestive Diseases
and Nutrition | Journal of Laboratory and Clinical
Medicine |
| American Journal of Diseases of Children | Journal of Milk Technology |
| American Journal of Hygiene | Journal of Nervous and Mental Diseases |
| American Journal of the Medical Sciences | Journal of Nutrition |
| American Journal of Nursing | Journal of Parasitology |
| American Journal of Obstetrics and
Gynecology | Journal of Pediatrics |
| American Journal of Public Health | Journal of Social Hygiene |
| American Journal of Syphilis, Gonorrhea
and Venereal Diseases | Journal of Urology |
| American Journal of Tropical Medicine | Labor Standards |
| American Medical Association Journal | Lancet |
| American Review of Tuberculosis | League of Nations Health Organization
Bulletin |
| Annals of Internal Medicine | Medical Clinics of North America |
| Annals of Medical History | Medical Library Association Bulletin |
| Archives of Internal Medicine | Medicine |
| Archives of Neurology and Psychiatry | Mental Hygiene |
| Archives of Pathology | Metropolitan Quarterly Bulletin for Nurses |
| Archives of Surgery | Metropolitan Statistical Bulletin |
| Bulletin of Hygiene | Milbank Quarterly Bulletin |
| Canadian Public Health Journal | Milk Plant Monthly |
| The Child | Modern Hospital |
| Cleveland Clinic Quarterly | Modern Medicine |
| Dade County Medical Society Bulletin | Monthly Labor Review |
| Diseases of the Chest | Municipal Sanitation |
| Educational Screen | National Negro Health News |
| Engineering News-Record | National Tuberculosis Association Bulletin |
| Eugenical News | New York Academy of Medicine Bulletin |
| Florida Medical Association Journal | Physiological Reviews |
| Florida Milk Board Bulletin | Public Health Nursing |
| Florida Municipal Record | Public Health Reports (weekly) |
| Florida State Pharmaceutical Journal | Public Health Reviews |
| Health Officer | Quarterly Bulletin of the Seaview Hospital |
| Health Officer's News Digest | Quarterly Cumulative Index Medicine |
| Hebrew Medical Journal | Radiology |
| Hygiene | Red Cross Courier |
| International Journal of Leprosy | Sewage Works Journal |
| Journal-Lancet | Social Hygiene News |
| Journal of Abnormal and Social Psychology | Southeastern Drug Journal |
| Journal of American Veterinary Medical
Association | Southern Medical Journal |
| Journal of Biological Chemistry | Survey Graphic |
| Journal of Clinical Investigation | Time |
| Journal of Contraception | U. S. Naval Medical Bulletin |
| Journal of Dental Research | Venereal Disease Information |
| Journal of Health and Physical Education | Water Works and Sewerage |
| | Water Works Engineering |

*Any of these may be borrowed.

NEWS ITEMS

To the MARCH OF TIME goes credit for producing the most excellent bit of health education yet to come from the movies. If this feature titled *Men of Medicine—1938* is billed at your local theatre, make a point of seeing it. You will be instructed, certainly. You will also be entertained, as the picture is presented in true MARCH OF TIME fashion—good theatre, excellent photography, impartial accuracy.



According to an article "The Press and the National Health Survey" published in the March, 1938, issue of THE HEALTH OFFICER, Florida was one of the five states whose newspapers published the greatest number of news comments on the Health Survey. Florida newspaper editors are to be congratulated for their intelligent interest in public health matters.



As a result of the activities of the Lake County Medical Society and many civic organizations, the Lake County Health Unit is now in operation. The new health unit, which is located in Tavares, is under the directorship of Dr. Terry Bird, a former resident of Winter Haven.

The Lake County Health Unit is the fifteenth health unit to be established by the State Board of Health—an act which is in accordance with the policy of its Bureau of District and County Health Work "to direct every effort toward an extensive program of health education for the expansion of full-time cooperative health service in Florida."



1938 marks the 100th anniversary of the birth of George Miller Sternberg, one time Surgeon General of the United States, benefactor of Florida because of his contributions to the etiology of yellow fever, and because

he it was who organized the famous Yellow Fever Commission and appointed Walter Reed to its membership.



Speaking before the National Organization of Public Health Nurses at Kansas City, Missouri, April 27, 1938, Dr. C. E. Waller of the United States Public Health Service said: "May I suggest, with respect to health education, that until we can establish some of our teaching on a more sound scientific foundation, we give a little less emphasis to personal hygiene habits—especially in our schools, teach the individual the importance of personal immunization, early medical care and diagnosis in illness, and impress upon him the value of community-wide environmental sanitation measures. We also need another kind of health education—what I call "political" education—acquainting the public with what the health department can do, what its objectives are and what its achievements have been. This aspect of our health education program has been sadly neglected in many sections of the country in the past. There is urgent need for teaching these things—interpreting health needs and the health program to the 'man on the street,' and the woman in the home."



A National Health Conference was called to meet in Washington, July 18-20, to consider the needs of the nation in the fields of health and medical care. Representatives of the medical and other professional organizations interested in the provision of medical services, and also of agriculture, labor, and other citizen groups met with the President's Interdepartmental Committee to Coordinate Health and Welfare Activities, which has been working on the subject for three years.

WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



BUREAUS AND DIVISIONS AT JACKSONVILLE

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Accounting.....	G. Wilson Baltzoll
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District and County Health Work.....	A. B. McCreary, M. D.
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Health Education.....	Elizabeth Bohnenberger
Laboratories.....	J. N. Patterson, M.D.
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Public Health Nursing.....	Ruth E. Mettlinger, R. N.
Tuberculosis.....	A. J. Logie, M. D.
Vital Statistics.....	Edward M. L'Espe, M. D.

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Orange County.....	W. P. Rice, M. D.
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Dist. 3. Ocala.....	D. C. Witt, M. D.
Dist. 4. Barlow.....	C. W. Pease, M.D.
Dist. 5. West Palm Beach.....	Leland H. Demo, M.D.

MALARIA RESEARCH

Mark E. Boyd, M. D., Tallahassee.....	Rockefeller Foundation
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ENTOMOLOGY

W. V. Klog, Ph. D., Orlando.....	U. S. Bureau Entomology
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FLORIDA

HEALTH NOTES

MALARIA

The Circle of Malaria.....McPhaul

Malaria, A Public Health Problem.....Boyd

Malaria Control Methods.....Elmendorf

The State Board of Health and Malaria Control. *Cutlett*

Malaria Mortality, Florida, 1937.....L'Engle

"Despite the fact that we have more exact knowledge of malaria, considering the difficulties of the subject, than perhaps any other disease, despite the fact that we have assured measures of prevention, malaria counts its victims by the hundreds of thousands annually . . ."

MILTON J. ROSENAU, M. D.



"There is no quick and easy method of malaria control . . . Wherever malaria exists it must be fought year after year for an indefinite period. Just as there is no permanence about pest control in agriculture, or road repairs, so there can be none in malaria prophylaxis."

PAUL F. RUSSELL, M. D.



To be effective . . . any program of malaria control must be made a part of the general program of the local health department with such facilities and aid as may be necessary rendered through the state health organization and not set up as independent services.

E. L. BISHOP, M. D.

FLORIDA HEALTH NOTES

Official Monthly Publication of the

STATE BOARD OF HEALTH

JACKSONVILLE, FLORIDA

Esl. 1890

HON. FRED P. CONE.....Governor of Florida

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State Health Officer

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AUGUST, 1938

No. 8

THE CIRCLE OF MALARIA

W. A. McPHAIL, M. D.
State Health Officer

Malaria control must travel in a circle. FIND MALARIA. FIND THE MOSQUITO. KILL THE MOSQUITO. To cure every person in a community of malaria is useless if we do not find the breeding places of the mosquito which carries malaria. To find the breeding places of the mosquito is useless if we do not take measures to kill the mosquito when found. Likewise to institute measures for eliminating mosquitoes without first finding out exactly where they are breeding in greatest numbers is useless.

None of the three steps in malaria control is of much significance without the other two. To say that control travels in a circle is to imply that there is no end to the problem. Practically this is true.

The disease has been a scourge to humanity for thousands of years. Its control is a problem in upkeep, just as is a pure water supply, an electric current supply, a community transportation system, or any other public utility. We get value received for malaria control only so long as it is properly maintained. The sooner Florida realizes that malaria control should be an item to be included in every county budget, the sooner will malaria cease to be the enormous economic burden it now is.

The State Board of Health approaches the problem of malaria control from three angles: Epidemiology, which is *finding malaria*, Entomology, which is *finding the mosquito*, and Engineering, which includes measures to *kill the mosquito*. With the cooperation of the Rockefeller Foundation, there is available to county health departments of Florida the advisory service of an expert malariologist. Medical surveys of the incidence of malaria will be made, with recommendations for its control. Working with the federal Department of Agriculture, surveys of the breeding places of mosquitoes are being carried out by the State Board of Health. Cooperating with both of these services, the Engineering Bureau of the State Board of Health will recommend and supervise various eradication measures, including drainage projects, screening, oiling, etc.

Malaria control is a responsibility of every community in Florida. Permanent control activities should be a function of the local health department. To this end, the wisest course for the citizens of every community to pursue is to insist on the establishment of local health service. A local health department is the final answer to the malaria control problem of Florida.

MALARIA. A PUBLIC HEALTH PROBLEM

MARK F. BOYD, M. D., *Director*

*Division of Malaria Research, Rockefeller Foundation Cooperating
Tallahassee, Florida*

As a public health problem malaria presents two aspects, namely mortality and morbidity. The first relates to malaria as a cause of death, the second to malaria as a cause of sickness. The former aspect is entirely secondary to the latter since it is obvious that if malaria as a cause of sickness is eliminated, the deaths from that source will disappear.

The term malaria employed today is restricted in application to a group of closely related diseases all produced by a minute protozoan parasite which infects the red blood cells upon the substance of which they subsist, and which they consequently destroy. As a result of this destruction of red blood cells, the infected person becomes anemic and develops a pallor. These minute parasites have a very short life span which is terminated by the complete division of the parent parasite into from 8 to 32 progeny every 72 to 48 hours. Since the majority have a synchronous development, division is largely simultaneous, which results in the sudden liberation of toxic substances into the circulation of the patient, as a consequence of which the patient experiences a paroxysm of chill and fever, the regular periodicity of which is such a characteristic feature of the disease. These regularly recurring paroxysms continue until: (a) interrupted by treatment, or (b) the patient if untreated develops immunity and becomes able to spontaneously destroy the parasites of his infection, or (c) the patient dies. Different kinds of these parasites vary greatly in the danger they present. Some kinds are of moment chiefly from the disabling illness they produce, others are a real peril as a cause of death. As the infection progresses the parasites produce certain specialized sexual cells, which if taken into a blood-sucking anopheline mosquito, undergo further devel-

opment, and make it possible, after the lapse of 10 days or 2 weeks, for such a mosquito to infect with the parasites the person on whom it subsequently feeds.

While at some time or another it is likely opportunities for the transmission of malaria may occur anywhere in Florida outside of the limits where control methods are regularly employed, it is chiefly in the gulf counties lying between Tampa Bay and the Apalachicola River, that the disease is most in evidence. Even in this region the intensity varies from year to year. At periods of epidemic or maximum prevalence it may be encountered outside these limits.

Since these parasites are usually readily detectable by microscopic examination of the blood of any person actively experiencing a malaria attack, their recognition should serve as the basis of a diagnosis of malaria. Any patient about whom this question is raised should expect his physicians to make this test, or cause it to be made, since the State Board of Health laboratories have ample facilities for this purpose.

Most of the mortality caused by malaria is attributable to inadequate treatment, and thus in turn in a large degree can be laid at the door of the time honored but none the less indefensible practice of self medication. When the population was sparse and medical attention inaccessible, self medication had an appreciable degree of justification, which is no longer the case. Self medication not only results in the wasteful administration of treatment when the illness has some other cause, but results in insufficient and improper treatment when the infection is actually malarial. To the layman we would say: If you suspect a malarial infection, consult your physician, expect him to cause a blood examination for the parasites to be made, and if found

faithfully employ the medicine prescribed in the indicated manner.

Cure of a malarial infection, by that meaning the extermination of the parasites from the body, is not to be inferred from a cessation of the symptoms, either spontaneously or as a result of the employment of a drug. Cure in this sense depends upon immunity, which requires time to acquire. Even though effectively treated, an infected person may experience the return of one or more periods of clinical activity before the infection is overcome. The skilled physician will manage the attack so that the effect of the drug employed is enhanced by the developing immunity.

Modern methods for the control of malarial sickness are based upon the peculiar manner of the transmission of its parasites by anopheline mosquitoes, since it is not acquired in any other manner.

These measures, depending upon the scope of their application, may be regarded as individual or communal.

In the former class the most important to consider is protection from attack by hungry mosquitoes, best achieved by the mosquito proofing through screening and other measures of dwellings. In malarious regions housing which does not afford mosquito protection cannot be regarded as adequate. It is not enough to own a mosquito-proof dwelling. The alert person will stay within the protection of the screens after sundown, the period when these mosquitoes are biting, and thus reap the full benefit from their dwelling. In the absence of mosquito-proof dwellings, the use of mosquito bars over beds will diminish the opportunities to receive infection. All houses in Florida should be mosquito-proof. The promotion of mosquito-proofing as a measure of practical sanitation, should be actively prosecuted by every health department, which should also supervise the installation of the necessary improvements and repairs.

Where economically feasible the

elimination of these mosquitoes is the most satisfactory means of eliminating malaria. Elimination is most practicably effected by measures directed against the young mosquitoes or "wiggle-tails" in their breeding places, rather than against the adults.

Since the anopheline mosquitoes do not breed to any significant extent in the water held in artificial containers on living premises, but prefer natural collections of water, some of which may be as far as a mile distant, the average resident of a village or town as an individual, usually can do but little to reduce the production of these mosquitoes. The attainment of such objectives requires communal effort, an interest in which should be stimulated by the local health authorities.

Before public resources are expended on the control of malaria, a survey of the community concerned should be made by the health authorities. As a result of such an investigation, the local malaria foci will be discovered, the breeding places of the responsible anophelines detected, and the most economically practicable means of dealing with the latter determined. By thus carefully considering the problem, unnecessary, wasteful and ineffectual expenditures of labor and materials will be avoided.

In considering measures for dealing with the anopheline breeding places discovered about any village or town, it should always be ascertained whether their complete elimination can be effected. If practicable, such measures should always receive first choice, as they are the most efficient, are permanent or practically so, and are most economical in the long run. Some form of drainage or filling, are the means employed to secure the complete elimination of anopheline breeding. Their applicability to the local situation must be ascertained, and if deemed practicable, a plan for their execution evolved. While the elimination of all unnecessary standing water by these methods from the immediate vicinity of any concentration of

population is highly desirable, yet their application to rural conditions is very limited, unless the land reclaimed can be economically utilized. In the application of drainage, preference should be given to the discharge of water by tile lines or storm sewers rather than by open ditches, but if open ditches are required, in the interest of economical maintenance, their bottoms should be paved or lined.

Where for any valid reason drainage is impracticable, measures to destroy the anopheline larvae breeding in such an area, are the only other recourse. Any of the present measures available require regular repetition during the summer season and in the long run most will prove very expensive. Of the natural or manipulative measures, the one most applicable to impounded water consists in a regular cyclical fluctuation or "draw down" in the water level during the breeding season. Such a practice keeps the water margin against clean shores and facilitates the destruction of "wiggie-tails" by top-minnows. Of the natural enemies of mosquitoes, top-minnows are probably the most useful, and the only known enemies whose aid it is economically practicable to deliberately enlist.

During the execution of a drainage program, that will when complete eliminate the breeding areas, or where the practicable drainage will leave some residual water, or where drainage does not appear feasible, consideration may be given to the practicability of regularly and routinely distributing over such water surfaces, substances which are poisonous to "wiggie-tails." Among substances employed for this purpose, the most trustworthy are various oils and Paris Green. If properly employed they are neither dangerous to animals or offensive. They must be skillfully applied, but even under the best of circumstances their efficiency in reducing mosquito production is less than that of drainage. Since their effect is transitory, and

their indefinite use except upon a very small scale, is very costly, while if suspended for any reason, the benefits enjoyed may soon be lost, they should be regarded as temporary measures, best adapted to use in the vicinity of towns or villages.

Any method of malaria control that does not effect the permanent elimination of anopheline mosquitoes, is paving the way for the return of malaria epidemics as soon as the execution of the methods is interrupted or suspended and the community immunity wears off. Such methods offer only transitory benefit, while their continuous employment makes their application very expensive. Sooner or later all those concerned with the control of this disease will recognize that the results must be measured by an economic yardstick.

In closing this brief sketch passing reference may be made to the idea of controlling malaria by the widespread and general treatment of the sick. Theoretically the idea has certain attractive features but its practical application utilizing any drug now known in a civil population has decided limitations. In a period when malaria transmission is declining, such measures may hasten the rate of decline, but they do not effect any improvement in the basic factors responsible for the local incidence of malaria. In application they are probably the most expensive of all measures, and like the others whose influence is short lived, will require continuous application. Its only practical field is in a mobile military or isolated and temporary industrial group.

Although the facilities available for the treatment of acute malaria by physicians have broadened of recent years, the final cure of the infection probably still depends upon the immunization of the infected person. Neither do we as yet possess a drug that will prevent a person from acquiring infection if bitten by an infected anopheline.

MALARIA CONTROL METHODS

JOHN E. ELMENDORF, JR., M. D., *Director*
Malaria Division, Escambia County Health Department
Rockefeller Foundation Cooperating

In practically all localities where tropical conditions are found or climatic conditions approaching the tropical prevail, a disease is present which causes great ravages among the inhabitants of these areas. This disease exacts its toll in deaths, in acute sickness and also in a lowering of physical and mental efficiency caused by its chronic manifestations. This disease is "malaria."

Certain diseases wage their warfare against the individual and cause for him the most dire results. Such a disease for example is pneumonia. It can cause death, suffering and expense for the individual. There are other diseases, which not only attack and affect the individual, but also, because of their widespread onslaught, affect the community deeply as well. Malaria is one of these diseases.

Large and important enterprises such as railroads, fruit producing companies, electric power projects have recognized the importance of this disease and carry on their control measures against it because of the economy involved relating to their manpower. They have found that, outside of all humanitarian reasons it is a necessary procedure for them.

One of the largest enterprises in its class in the world today is the Electric Power project being constructed by the Tennessee Valley Authority. The government has recognized that hand in hand with the construction of their dams and impounding of waters for power, malaria control work must be carried on for the protection of the workmen and for the protection of the populace in the surrounding communities.

Our own Panama Canal was constructed only after malaria and other mosquito-borne diseases were controlled in that zone. The first attempt by the French to construct the

canal was a failure and failure caused largely by death and sickness with malaria playing a leading role.

To determine the degree of malaria existent in a community, there is a quick and effective means. A widely used and effective method of securing this data is through the Splenic Examination. This is a simple procedure and entails only palpation of the region of the upper left abdomen by an experienced examiner. The patients, usually school children, lie flat on their backs and the doctor, examining, palpates the bare abdomen to detect the presence of an enlarged spleen. An enlargement of this organ, or no enlargement, can be rapidly determined and by a correct interpretation of the results the degree of malaria infection in the community can be ascertained. Frequently in association with this examination blood smears are taken as well for additional and accessory information. This procedure of blood smears is simple and consists solely of taking a drop of blood from the finger or ear lobe on a slide, staining with suitable stains and subsequent examination under the microscope for the parasites of malaria. The latter method, though a most definite means of diagnosis, is more time-consuming than the examination by the splenic method and is not essential for determining simply the presence of malaria in a region and its dissemination.

The quickest method of approach to secure this original data is by making a survey inside the schools. Here all the children of a region are congregated. They represent all areas, many ages, and all economic classes. With a well trained staff eighty to one hundred children can be examined in an hour, and by noting their place of residence clear ideas can be obtained regarding the presence of the disease and its location.

In accordance with this procedure the schools of twelve counties were examined in Florida during the spring of 1936 and the following data of the presence of malaria was secured:

County	Percentage of whites infected as determined by sample Splenic Survey.
Leon	9.5
Gadsden	11.3
Jefferson	16.2
Franklin	24.1
Taylor	28.9
Madison	23.7
Dixie	23.4
Wakulla	27.2
Liberty	19.4
Jackson	22.9
Escambia	19.8
Lafayette	14.1

Percentages of this nature, as applied to disease, appear very impersonal until we remember that 25% means that 25 persons out of every 100 are suffering with the disease. Then we can realize the importance of these figures for the individual and for the community.

MALARIA CONTROLLABLE

To combat efficiently any disease it is first necessary to recognize and admit its presence. After this there is the open, though sometimes long, road of applying the accepted and known measures of control.

Malaria is a disease which is transmitted by a mosquito, a particular kind of mosquito called the "Anopheles." It is not essential for all of us to remember its name, we can call it the "malaria mosquito," but we must remember that the Anopheles, or malaria mosquito, is the only known one that transmits the disease. If we are annoyed by mosquitoes in our community, it does not necessarily mean that we will contract malaria. There are hundreds of other mosquitoes which cause annoyance, it is true, but which do not transmit disease. For this reason

the necessity of a survey to determine the presence of infection and to determine the presence of the Anopheles mosquito and to discover the place where this mosquito breeds.

To have malaria, then, in a community there are certain conditions which must be met. We must have the Anopheles mosquito and we must have as well someone in the locality suffering from the disease. The Anopheles mosquito bites this sick person, when the parasites in the person's blood are in the right stage of development; the mosquito receives these parasites into its stomach and they develop there for about two weeks, until they are in a stage when this mosquito by biting another person can transmit the infection. This is what we term the "chain of infection," namely:

1. A person sick with malaria and the parasites in a correct state for infecting the mosquito.

2. The mosquito becomes itself infected and after about two weeks time develops a type of parasite which can infect another person.

3. The infected mosquito bites another individual and in about two weeks this person becomes sick with malaria.

and so the infection proceeds.

There are some classes of mosquitoes which can fly for miles, as high as twenty-five or thirty miles. These are not the anopheles group however. The Anopheles rarely fly over three miles from the water in which they breed and usually those causing our disease have not flown over one mile from the spot where they emerged from their wiggler stage.

With this knowledge the methods of control are apparent. We must try to break this chain of infection between the sick person, the Anopheles, and the well person.

One method obviously is by treating the sick until they have no more parasites in their blood with which to infect the Anopheles. This method is good for the individual as it will rid him in most instances of the in-

fection, but for various reasons it is laborious work for community control of malaria.

Other methods involve the attack against the mosquito.

1. We can attack the mosquito when breeding in the water. That is, we can apply larvacides to kill the larvae of the mosquito before it becomes an adult, and develops wings and flies.

2. We can try to attack the adults themselves and kill them.

3. We can screen houses so that there is a mechanical protection against the mosquito entering and biting.

4. We can attack the areas (swamps, streams, pools, borrow pits, meadows), where the water stands and eliminate the mosquito at its very source.

All of these methods can be used and are used. Each one has its own specific field of application.

We can apply larvacides to water areas where *Anopheles* are breeding but this necessitates constant re-application, as all larvacides gradually disappear from the water in about ten days or two weeks time, and then new applications must be made to kill subsequent broods.

Inside of our own houses we can try to kill the adults. This can be effective, but it is laborious and not suitable to wide application.

Houses can be screened and this method is a very efficient one especially when a whole community joins in the program. It is utilized largely when the breeding areas are extensive and the population scattered, and the cost of eliminating breeding areas by drainage would not be warranted. The most permanent method and the method which attacks the chain of the infection in its most vulnerable

point is the elimination of breeding areas themselves, so that no *Anopheles* can breed. This entails the process of drainage. The seeming magnitude of malaria work sometimes seems discouraging at the start, but once facts are known and plans are made a certain amount can be accomplished each year to the extent of the available funds, and continued on year by year until the whole plan is accomplished. Once done it is then permanently done with only a small amount of maintenance necessary.

In Florida, as in practically all of the Southern States, malaria is present in varying degrees in differing localities. The State and the community will be judged in this matter by the effectiveness of the measures taken to control this disease. Suffering of the individual and economic loss to the community can be avoided if the inhabitants of a locality so desire.

The State Board of Health is already attacking this disease in some districts where the communities so desire. One such work now being performed in Florida and under the auspices of the State Board of Health is the malaria control program at present in progress in Escambia County and the City of Pensacola. The State Board of Health stands ready to lend assistance in certain phases of the work to other localities where malaria is found to be a problem, and where the locality itself wishes to contribute.

If malaria exists in their districts it is a matter for the locality to choose.

DO WE WISH TO TRY TO LIVE ALONG
WITH THE DISEASE PRESENT IN
OUR COMMUNITY?

OR

DO WE WISH TO CONTROL MALARIA?

THE STATE BOARD OF HEALTH AND MALARIA CONTROL

G. F. CATLETT, *Chief Engineer*
Florida State Board of Health

Measures for the prevention of mosquito breeding—drainage, the elimination of standing water, application of larvicides, stocking of fish, and all of the various methods used for the destruction of mosquitoes in general—constitute only one of the major phases of the control of the disease, malaria.

This disease is most disgracefully prevalent over the State of Florida as it is in the Southern States in general. It, together with syphilis, tuberculosis, and hookworm, constitutes the major public health problem of the State. Why then, we are constantly asked, doesn't the State Board of Health get busy and control it? Mosquitoes are essential in the transmission of malaria, and mosquitoes only breed in standing water, so why don't you apply drainage and have done with it? Why not work out a State-wide drainage program? Why, with an enabling act, don't they form County Anti-Mosquito Districts and eliminate the malaria mosquito at least?

Responsibility for the control of malaria in the individual counties could never be assumed by the State Board. Even should the enormous personnel necessary for the location of the disease, of mosquitoes concerned, and their breeding places, engineering and entomological surveys, etc., be assembled, it would be entirely impracticable to operate from a central State agency. Should large sums be appropriated for a drainage program, it could not be economically administered by a central State agency.

Yet the survey, medical, entomological, and engineering, must be done before we can hope to set up a drainage program.

The Anti-Mosquito District as now set up under the Statute would be

grossly inadequate to handle the malaria problem. Its objective is the control of mosquito breeding. The control of malaria goes much farther than this and requires a greater diversity of personnel and broader activities. Such districts, however, might be arranged to cooperate and be of great help to a county health organization.

Over a million dollars has been spent in Florida and many millions in other malarious States under the various Federal Relief Programs for malaria control drainage projects. Those of us who have been in contact with these know that a large portion of this has been wasted insofar as its stated objective is concerned. This was due to the lack of the necessary work and surveys that must precede a drainage program, inadequacy of proper supervisory personnel, and lack of support by the authorities of the localities profiting by such drainage. Even where construction was sound, local apathy and ignorance precluded necessary maintenance to make the work effective.

If anything is to be accomplished in the fight on malaria the first step is to convince the people of the county or community that they have a malaria problem of serious consequence. It is unbelievable that should parents be convinced that as high as 25-30% of their school children in some counties are infected with malaria, enthusiastic interest would not be secured and funds provided for effective programs for control of the disease. Of course, the people in the counties throughout the State have been told this in a general way. Experience has shown, however, that constant reiteration and demonstration with assistance of the community leaders is necessary

before it sinks in and the individual awakes to the fact that something can and should be done. This education can only be successfully accomplished by an efficient local health unit. The major objective of the State Board of Health's current program is securing health organizations in every county in the State, as has been accomplished in some and is the present aim in all the States.

With such a health organization established, and, concurrent with this, a local educational program, the first step is a survey of the county for the location of all malaria cases of recent occurrence. Homes in which such have occurred are located on maps. This survey is, of course, a medical problem. It is best carried out by splenic examination or the securing of blood specimens for laboratory examination, from each school child in the community. Engineering personnel furnish maps locating all homes and those having school children infected are so indicated on the map.

Thus we have located the extent of malaria incidence and just where it is. Until we have such information no control measures can be intelligently applied, and if such are attempted without it, a waste of funds inevitably must follow.

With the malaria located, the next step is to locate breeding places of mosquitoes transmitting it—an entomological problem. Knowing the breeding places, it is then necessary to determine and plan control measures. The engineer must survey and determine cost estimates on drainage. This may or may not prove feasible,

depending upon the size of the job, the number of persons benefited, and the community's ability to pay. Only in more densely populated areas will drainage be found economically feasible, and then not sufficiently to solve the problem. Only a limited area of the State is amenable to drainage measures. In lieu of this we must resort to such other methods, of screening, of larvicide, of prophylactic medication. As a matter of fact any malaria control program will make use of all methods. Complete destruction of *Anopheles* mosquitoes is hardly possible and the screening of homes will always be an important factor in any sanitation program.

The present program of the State Board of Health in regard to malaria control may, therefore, be stated as the securing of competent local health organizations which is the *sine qua non* upon which to base any program for disease control; assisting such organizations in their primary step of educating the public as to facts and remedies, and enlisting their interest and support; and assisting the local health officer with specialized personnel, medical, entomological and engineering.

Many of us recall twenty-five years ago or more when flies swarmed in the best of our homes. The fly was definitely connected with the transmission of gastro-intestinal diseases. Broad, well-organized efforts were adopted to educate the people to facts and remedies. That the "swat the fly" campaign was successful is evidenced by present conditions. Malaria control requires similar educational measures.

At Semenderahad, India, in 1897, Major Ronald Ross discovered that the *anopheles* mosquito transferred the malaria parasite from man to man. Seventeen years later he received a letter from General Gorgas who wrote "It seems to me not extreme, therefore, to say that it was your discovery of this fact that has enabled us to

build the Canal at the Isthmus of Panama." More and more it is becoming apparent that the American success at Panama was not primarily an engineering feat, great as that was, but rather a sanitary triumph over two of the oldest and most pernicious human maladies—yellow fever and malaria.

NEWS ITEMS

The new administration building of the State Board of Health, Pearl and Second Streets, Jacksonville, has been completed and is now occupied by the offices of the State Health Officer, the Bureau of Accounting, and the Bureau of Vital Statistics.

It is constructed of reinforced concrete, brick and stone, with an imposing front on Pearl Street and connected with the original building by a reinforced concrete passageway. The building was erected at an approximate cost of \$90,000, half of which was matched by WPA funds. It is estimated that in the course of a few years the new building will have paid for itself by saving rent for the Bureau of Vital Statistics which has been renting downtown offices for years.

The September 1937 issue of FLORIDA HEALTH NOTES carried an article on the then proposed new building and also a picture of the architect's drawing.



The report of the "Proposed Program of Health Education" of the Arizona State Department of Health gives the news that a Health Library will be established within the year. This will be a free lending library, except for postage, and will contain magazines, journals, and books dealing with all phases of medicine and public health. One more state added to the growing list which acknowledges the value of a public health library sponsored by the state board of health.



England's National Health Campaign, now afoot, is using cartoon strips such as we see in our magazines and comic papers advertising well-known brands of laundry soap, cigarettes and other commercial products. Under the slogan "... For Your Baby" and "Go to the Wel-

fare Centre with Your Problems," two housewives are shown discussing, not "dish-pau hands," "tattle-tale gray," or "getting a lift"—but infant care.



"Six million people in the United States are unable to work, attend school, or pursue other usual activities each day during the winter months on account of illness, injury or gross physical impairment resulting from disease or accident," according to the first preliminary report of the National Health Survey issued by the United States Public Health Service. This survey, carried out under the Works Progress Administration during five months of 1935-36, is the largest detailed study of current health conditions ever made. It involved a house-to-house canvas of 740,000 families in 84 cities in 19 states, and 36,000 families in rural areas in three states. This may be considered as a cross-section of the population of the United States. The incidence of illness varied with the age-group, being highest, 1 in 8, among people over 65 years, lowest, 1 in 40, among the 15 to 24 years group. Children under 15 averaged about the same degree of health as the adults between 25 and 65 years.



The American Public Health Association has just released a new book, entitled *Appraisal Form for Local Health Work*. The book is "primarily a measuring rod for community health services." The book is divided into three major sections: a survey schedule for studying a community's health facilities, a schedule for appraising the local health activities, and a list of significant health indexes. The Association urges the use of the Appraisal Form by health workers for evaluating periodically their public health programs.

BUREAU OF VITAL STATISTICS

EDWARD M. L'ENGLE, M. D., *Director*

MALARIA

In 1937, there were 205 deaths from malaria in the state. In only one year since 1917, have there been as few. In 1931, there were also 205 deaths but since the population has increased since that year, the mortality rate is the lowest recorded.

However, even with only 205 deaths, malaria still remains one of the serious public health problems in this state since it is conservatively estimated that for each death from

malaria, there are 200 cases. Using this method of calculation, therefore, there were 41,000 cases of malaria in Florida last year.

The table below gives the deaths and death rates by counties and by color and the accompanying graph shows the death rates for the state for each year from 1917 to 1937, inclusive, and shows the total precipitation in inches for each year.

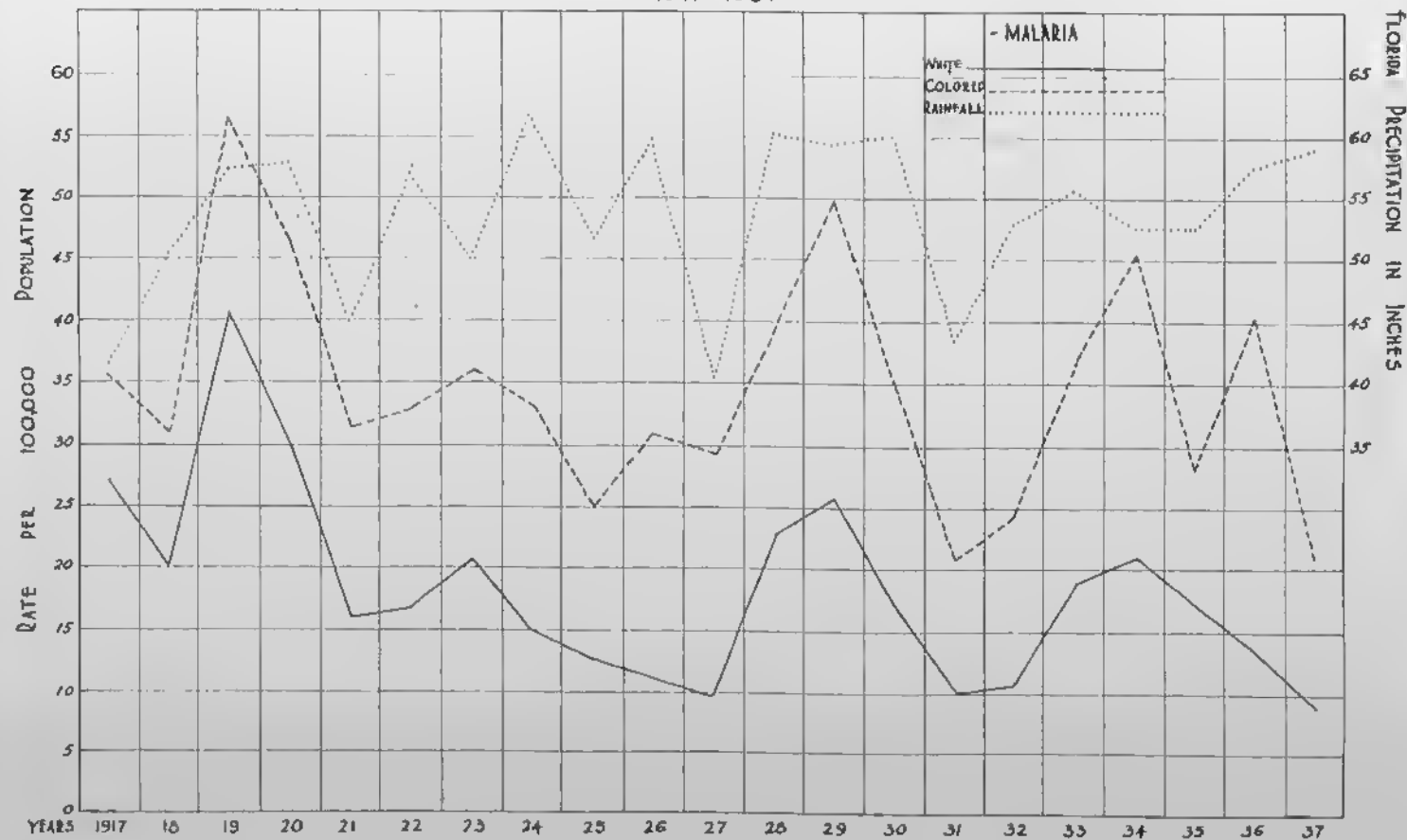
Deaths from Malaria and Rates per 100,000 Population, by Color and by Counties, Florida, 1937

COUNTIES	TOTAL		WHITE		COLORED	
	Deaths	Rate	Deaths	Rate	Deaths	Rate
State	205	12.3	100	8.4	105	21.7
Alachua	5	13.5	1	4.9	4	24.0
Baker	0	—	0	—	0	—
Bay	2	10.6	0	—	2	60.6
Bradford	2	22.7	2	31.2	0	—
Brevard	0	—	0	—	0	—
Broward	1	4.1	0	—	1	12.2
Calhoun	2	22.7	2	28.2	0	—
Charlotte	1	26.5	0	—	1	135.3
Citrus	3	53.6	1	25.6	2	117.6
Clay	0	—	0	—	0	—
Collier	1	17.9	0	—	1	40.0
Columbia	5	32.1	2	21.1	3	49.2
Dade	0	—	0	—	0	—
DeSoto	2	24.1	1	14.7	1	66.7
Dixie	7	120.0	3	81.5	4	185.9
Duval	4	2.2	3	2.5	1	1.6
Escambia	4	6.9	2	4.7	2	13.6
Flagler	0	—	0	—	0	—
Franklin	1	15.2	0	—	1	45.5
Gadsden (Ex.)	4	14.8	2	18.2	2	12.5
State Hospital	1	24.1	0	—	1	68.5
Gilchrist	0	—	0	—	0	—
Glades	1	37.5	1	48.4	0	—
Gulf	2	64.7	1	50.4	1	90.3

Deaths from Malaria and Rates per 100,000 Population, by Color and by Counties, Florida, 1937—(Continued)

COUNTIES	TOTAL		WHITE		COLORED	
	Deaths	Rate	Deaths	Rate	Deaths	Rate
Hamilton	4	40.4	2	33.9	2	50.0
Hardee	1	8.5	1	9.2	0	—
Hendry	1	26.3	1	33.3	0	—
Hernando	0	—	0	—	0	—
Highlands	0	—	0	—	0	—
Hillsboro	14	8.7	8	6.1	6	19.7
Holmes	9	59.6	8	55.9	1	125.0
Indian River	0	—	0	—	0	—
Jackson	14	38.1	9	39.0	5	36.8
Jefferson	5	36.8	0	—	5	52.1
Lafayette	0	—	0	—	0	—
Lake	6	19.9	5	23.3	1	11.6
Lee	2	11.9	1	7.4	1	30.3
Leon	7	25.2	0	—	7	42.4
Levy	5	38.2	5	64.1	0	—
Liberty	0	—	0	—	0	—
Madison	7	39.5	2	23.3	5	54.9
Manatee	9	38.8	3	17.6	6	96.8
Marion	15	48.2	3	18.5	12	80.5
Martin	0	—	0	—	0	—
Monroe	0	—	0	—	0	—
Nassau	0	—	0	—	0	—
Okaloosa	3	24.2	3	26.1	0	—
Okeechobee	0	—	0	—	0	—
Orange	2	3.2	1	2.1	1	7.0
Osceola	1	10.3	0	—	1	44.6
Palm Beach	3	5.6	1	2.8	2	11.2
Pasco	1	8.8	1	10.4	0	—
Pinellas	5	7.6	3	5.8	2	14.5
Polk	1	1.2	0	—	1	5.4
Putnam	1	5.5	0	—	1	12.7
St. Johns	2	11.4	1	8.5	1	17.1
St. Lucie	0	—	0	—	0	—
Santa Rosa	0	—	0	—	0	—
Sarasota	2	14.0	0	—	2	54.1
Seminole	1	4.2	1	8.5	0	—
Sumter	4	39.9	2	28.3	2	67.7
Suwannee	5	28.7	1	8.7	4	67.8
Taylor	9	81.2	5	67.9	4	107.4
Union	1	11.6	0	—	1	30.3
Volusia	2	3.7	1	2.7	1	5.8
Wakulla	4	63.5	2	54.1	2	76.9
Walton	9	65.2	8	69.0	1	45.2
Washington	2	15.3	1	9.9	1	33.3

MALARIA MORTALITY BY COLOR AND ANNUAL PRECIPITATION 1917-1937



WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



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MALARIA RESEARCH

Mark F. Boyd, M. D., Tallahassee..... Rocketteller Foundation

ENTOMOLOGY

W. V. Kloss, Ph. D., Orlando..... U. S. Bureau Entomology



FLORIDA

HEALTH NOTES



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The School Nurse in Health Education

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FLORIDA HEALTH NOTES

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HEALTH CONSCIOUSNESS TAKES HOLD IN ESCAMBIA

An Editorial in *The Pensacola News-Journal*, August 28, 1938

Escambia County public is becoming public health conscious. And this is as it should be for public health means just what the words imply—health of the men, women and children, white and colored, who make up the population of our city and county.

The directing agency for public health and sanitation work in Escambia County, including the City of Pensacola, is the city-county health unit financed by appropriations from the city council, the board of county commissioners, the state health department and the federal government's health service and Children's Bureau.

With the health officer at its head it acts to prevent certain diseases and to control others. Its experts inspect food, milk, meat and sanitary arrangements. Its nurses attend the indigent and spread practical knowledge on home hygiene and care of the sick. They examine, inoculate and immunize school children, a vast task in itself.

The health department this year has been stressing four main objectives; maternity and infant care; venereal disease control; hookworm control, and malaria control.

"Well baby" conferences have been started where mothers bring their in-

fants for checks by doctors and where the mothers hear local pediatricians give instructions on baby care. These are primarily to keep the well babies well and to reduce infant mortality. Besides, prenatal conferences are held to help the mother make the best possible preparation for bringing her baby into the world. These assisted by the maternity home where many indigent mothers have received expert care at the lowest possible cost.

A clinic for treatment of indigent disease victims is held every Saturday at the health building. A recent government grant will enable the department to double the number being cared for. Pensacola has a high percentage of venereal diseases and its reduction is especially important due to the presence of Army and Navy personnel.

Hookworm infestation is due primarily to unsanitary privy conditions, not alone in the rural areas, but within the city itself where sanitary sewage is lacking and where in some sections even sanitary pit privies are not provided. By sanitary disposal of night soil, ground otherwise polluted by the hookworm and other intestinal parasites becomes clean again and the worms, which attach themselves to bare feet, are eliminat-

ed. The health department is now carrying on a campaign for the placing of these approved sanitary pit privies by building them at the lowest possible cost with WPA labor and transporting them to the home of the family which wishes them installed. The family pays only the cost of materials which go into the construction and they can be used in one spot by a family of seven for five to seven years.

Malaria control, under the expert direction of the Rockefeller foundation and with its funds together with city, county and state aid, is now entering upon its second year in Pensacola and Escambia County. Widespread drainage operations have been carried on with WPA and city help, sanitary drains of a permanent nature are being laid and scientific experiments carried on which will increase entomologists' knowledge of the habits of the malaria-carrying mosquito. County surveys have been completed for malaria control projects and splendid examinations soon will be carried on again in the public schools of the city and county.

This demonstration of malaria control is the first in the United States in which the Rockefeller foundation has lent the services of one of its experts to actually direct the work. As a consequence it has attracted national attention and brought malariologists from many states and some foreign countries.

These are just some of the more important public health activities being stressed this year by the health unit. But they could not be carried on successfully if it were not for the co-operation which the unit receives from the medical profession and we must realize at this time when "state medicine" is being debated nationally, that keeping people well keeps them away from the doctor and reduces the doctor's practice. Whether it reduces his income is a moot question, for those who live in unsani-

tary conditions are usually those least able to pay the doctor's fees.

Besides the medical profession, the health unit of course is dependent upon the city and county for funds with which to operate, but more than that it is dependent upon public support, not financially, but educationally. If the people did not realize the value to themselves individually of the preventive and control measures, the whole program would be useless.

Civic clubs and other organizations are more and more taking an active and participating interest in public health. The Kiwanis Club has with public and WPA aid constructed tuberculosis sanatoria which command the attention of the whole country. The Rotary Club carries on boys' work to build strong and healthy young men. The Lions Club provides eyeglasses for indigent school children and fosters playground activities. The Exchange Club is endeavoring to erect a contagious disease hospital near the tuberculosis sanatorium. The Pilot Club has sponsored tonsillectomies for indigent cases. Similar work is being done for children in the tuberculosis preventorium by the women's auxiliary. And we must not forget the milk which has been distributed for indigent school children by the Kiwanians.

Escambia County has made great strides in recent years in curbing disease, but much more remains to be done. The pellagra situation alone should command active interest of a responsible group which would supply yeast and educate victims of the malady in the necessity of a balanced diet of fresh vegetables and lean meats.

The lack of dental care among indigent school children, who as a consequence fail in their studies and even develop serious and disabling diseases, is another problem which some organization could well afford to correct. It is regrettable that the school board could not see fit to

spend \$1,500 to obtain a \$10,000 mobile dental project for Escambia County, a project which would have meant that every child in every school would have been examined for dental defects, those able to pay would have been treated by their dentists, and those unable to pay would have received the attention of the dentist and his assistant transported about the county in their mobile office. Some civic group which

could raise this comparatively small sum could perform a notable service for the community, and at a cost of about 10 cents per child.

However, the fact is that more and more knowledge of these problems is being disseminated to a receptive public and this is an encouraging omen of the time in years to come when our city and county will be as healthy as modern science can make them.

TECHNIC OF RADIO BROADCASTING IN HEALTH EDUCATION*

ALAN BLANCHARD

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Fifteen years have witnessed the development of a new medium through which the public may be educated, coerced, and prodded into new habits and new ways of thought and action. Not since the invention of movable types by Gutenberg in the 15th century introduced the age of practical printing and universal reading has such a powerful, far-reaching and logical tool been placed in the hands of those who would mold public opinion. Health workers more anxious to influence the health habits of our people than to increase their store of information, will, I believe, find the radio playing an increasingly important part in their educational work.

The first thing to consider is the audience. The radio audience is not a unit—there are many radio audiences. Each hour of the day has several different audiences. The people comprising them are like molecules, first in one combination, later in the day in another combination with molecules of another sort, having lost certain of their earlier associates and associations in the

change. There is the audience of housewives, and the audience of shut-ins. Later in the afternoon there is the audience of returning school children; and the housewives have become mothers. Later there are a variety of dinner audiences—young men and women who want only certain comedy programs, fathers who want music or silence, children who want the serial programs; the housewives who became mothers have now become wives. There is the Sunday morning "home and children" group, and there are the Sunday afternoon entertainment seekers. So it goes. A dramatic serial about two young lovers and their marital difficulties was a failure at night—husbands just did not like the sentimentality and the wives were a little ashamed of their interest in the program. But the sponsors were aware of this interest and transferred the program to midday. The housewives relaxing from their tasks loved it, and it became the second most important program during the day. The ideal is to find the program which attracts every audience—each individual. Since this is impossible, aim your program at the specific audience you wish to reach, style it for their approval. Do

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not think that all health programs should be the same type.

The next thing to realize is that your audience, psychologically, is not a group at all. It has seemed to me that most educators on the air directed their message to that vast audience of millions that is known as "the Radio Public." Only two or three people will be gathered around most of the radio sets tuned to your station. Not only is the group you are addressing small, but each person in that group must be reached as an individual. With a theatre audience you first try to reach its members individually, both through intellect and emotion. Then you try to mold them into a unit, with individuality lost or forgotten in the emotional climax. This marks success in the art. Not so in radio. Your listener there refuses to lose his individuality. You do not have him completely under your influence; you are not aided by mass reaction. He has too many distractions. He is in his own home where the habits of thought founded on environment are too strong.

So you must prepare your program for this individual. But is not this individual different from what he might be in another setting than his home? As psychologists and students of advertising well know, certain aspects of a man's self are brought to the fore when he is alone, others when he is part of a crowd, others again when he is acting as a member of the family group. It is the "member-of-the-family" self to which the broadcast message must be directed. And since the family is the oldest, most universal, and most permanent social group, and the one which health workers are most anxious to influence, we are fortunate in having at our disposal the medium of radio, and should use it widely.

There are two general types of radio programs; musical and dramatic. Under these two classes broadcasters group all programs.

For our purposes it is unnecessary to examine closely the musical pro-

grams, but in passing it is wise to note two points. The first is that music is the backbone of radio production. It is only the exceptional dramatic program which will draw the typical listener away from a jazz or symphonic orchestra. Musical programs hold their listeners on the first broadcast; dramatic programs build up their audiences slowly, week by week.

The second point is that in the excellent, commercially sponsored dramatic programs, music serves as introduction, "Curtains" and mood creator, to paint character and describe the scene. Since the message is to the ear alone, it is necessary that this be so. On many of the dramatic programs, musical talent costs are as great or greater than the dramatic talent costs. Over the air a proper musical setting is probably that which most often distinguishes a professional dramatic program from an amateur production.

When preparing a radio program, it is wise to ask yourself how this program will enter the home of your listener. Your listener will have the radio tuned to your station, and you will follow the preceding program; or your listener will spin the dial and there you are. In either case, your program enters as a guest; a guest who does not overstay his leave any longer than it takes to flick the dial; a guest whose welcome is in keeping with the pleasure he can give and the grace with which he offers it. More than any other, your program is a guest who cannot afford to break the commandments of good manners, the first of which is: Thou shalt not offend or bore.

Your program should present to your listener quickly and pleasingly that in which he, as an individual, is interested while he is a member of the family circle. You might write an article which he would read in a different mood, but if you simply presented the same article on the radio he would, with reason, be irritated by your conduct.

Perhaps the best model for a radio program is a good conversation with no one trying to monopolize the floor, or press for the acceptance of his views. Of course, a radio program does monopolize the conversation, but it can be so prepared that it leaves a feeling that your views and your listeners have both been well discussed and you both enjoyed the visit.

Writing for radio is quite different from writing a magazine article or news story. In reality, you are writing a drama, even if it is to be a talk by one speaker. He must act the part of the guest sitting in the opposite chair. However, the drama you are writing will only be heard, not seen. You must lend to your listener your eyes. You must, with words, bring to your drama color, light and shade, distance, texture, form, mass and weight, and taste and smell.

Health educators often must use statistics. Presenting such figures to the radio public in all their stark nakedness is little short of indecent. The listener puts you down as an intellectual snob. It is wise to present your statistics in a humanized version carefully described so your listener can picture them in his mind. When speaking of medical apparatus or techniques, it is best to liken them to objects and methods with which your listener is familiar.

Another point to remember in preparing a radio program is that listeners may tune in at any point, and tune out also. For those coming in you must frequently repeat the gist of your introduction. For those leaving you must early in the program present your conclusions. But all this must be done without sacrificing the sustained quality of the program, for the listeners who sit through the entire program are the ones you are most anxious to please. Perhaps the best formula is that classic for a successful sermon: "Tell 'em what you're going to tell 'em; tell it to 'em; and tell 'em what you told 'em."

It is more difficult to follow this formula in a radio play than in a radio talk, but with care it is still possible to allow for this "processional" part of your audience.

Another factor that causes difficulty in the preparation of a radio program is that of a definite time limit. This limit is measured in seconds, not minutes. Remember it only takes 10 seconds for an automobile going 20 miles an hour to transverse a city block. Ten seconds of silence on the air is more than enough time for the listener to dial another station. Ten seconds too much script is the most useless thing in radio.

Timing a program means reading it aloud, not under the breath, but in the voice that will be used over the air, allowing for all pauses and parts of the finished program. And when it is timed, it should be timed again, and again, and again, until an average reading time is determined. It may take 3 hours or more to time a 15-minute script properly and make the additions or deletions which are necessary, if the program in production is to "hit right on the nose." . . .

Do not time a program by figuring on the number of words or the number of pages of manuscript. Speakers differ in the number of words they can read a minute, and every speaker will vary his own reading time. . . .

The straight talk is the simplest and most foolproof program. In such talks it is best to personalize your message by illustrating your points with human interest stories of people who are similar to the members of your audience. Bring your message home. Do not tell these stories as if they were case histories, but tell them as if you were discussing with your listener the problems of a mutual friend. Many a successful commercial program is no more than a straight talk, but one filled with human anecdotes.

Fifteen minutes on the air is a long

time, and only a good radio speaker can hold the attention of his listeners for so long. It is therefore often wise to use two speakers on such a program, chosen to give a contrast in voices, personalities and opinions. In using 2 speakers, or 3 speakers on a half hour program, it is a good technic to have them tell one story between them, in order to connect the speeches, with the second speaker continuing the story or retelling it from a different viewpoint.

The interview form of program is effective, particularly when it develops into a discussion with the drama of conflicting ideas. In such a program 1 or 2 persons may be interviewed. The interviewer directs the questions and trends of the discussion. The interviewer is the audience personified. He should presumably know no more about the subject than your listener, be anxious to learn, yet quick to detect loose thinking or mistakes in the reasoning of the authorities he is questioning. The interviewer must satisfy the ego of the listeners; he must say some of the clever things that pop into the head of the listeners; and he must occasionally trip up the bigwigs. All this without lowering the interview to the level of a hot argument, or disrupting its serious purpose. Such a program must be spontaneous, and, though this seems a contradiction, must be as carefully prepared as a radio play. Every line, every word, every clever spontaneous remark must be written beforehand, and the whole carefully rehearsed.

Do not confuse the question-and-answer program with the interview or discussion program. The two are not the same. The question-and-answer program is usually just an excuse to get 2 voices on the program, though occasionally it may be an effective form for presenting certain material. It has the advantage over the straight talk in that the points are sharply defined, and the answers, as it were, underlined. However, it lacks drama, and unless the listener is interested in the very

questions asked, he will find little of general interest. This type, too, when used to present questions dealing with the diagnosis or treatment of disease, will too often resemble the program of the quack, and will draw letters impossible to answer, letters asking for diagnosis or prognosis of the ills of the writers.

We now come to the plays, or true dramatic programs. However, in passing, let us mention a transition type, the straight talk with dramatized sequences. In this form, the speaker may introduce a story; his voice then fades out and actors present a short scene. This type is used in many commercial programs and is very effective.

Similar to this is the use of other voices to present quoted statements, voices suggesting the authors of the statements. There is the typical doctor's voice, the lawyer's voice, the housewife's voice, the foreign scientist's voice. Using this type, the narrator may say, "as the eminent Viennese scientist, Dr. Von-Something-or-other, has said," and then the eminent doctor's voice-double gives the statement. Another use of this technic is to have 2 voices, distinctly different, alternately present points in a list of related statements, such as a set of health rules.

In a radio play, an announcer may introduce the program, set the stage, and change the scenes. It is better, however, to limit the announcements as far as possible, and let the lines of the characters describe the scenes. If you would write a radio play, study those which are presented by commercial sponsors—"One Man's Family" is one of the best of these. Through the study of Shakespeare's plays, you will find how the lines of characters may set the stage—stage settings as we know them were unknown in his day. Most of the Shakespeare plays simplified to their basic plots and characters, are extremely effective as radio dramas.

The number of leading characters in a radio play designed for a 15-

minute period should be 3, and there should not be many minor characters. In a serial drama the number may be increased, though no more characters should appear in any one production. This is not a hard-and-fast rule, but a good one. Radio listeners find it difficult to separate many characters to whom they have been introduced.

A change of scene is effective and refreshing and may occur several times in a 15-minute script if the scenes have a logical sequence suggested by the plot, so that the listener anticipates the change. But change for no good reason adds nothing but confusion to the script.

One might at some length describe the method by which characters are developed in a radio play, but that and the thoughtful study of stage plays and radio plays is the best teacher. If you are interested in this type of program, you should visit the most important radio station in your area and beg of them a few scripts of commercially sponsored radio dramas. Then you will be able to study the style of the professional in writing radio plays.

In my opinion plays are the most effective type of program for presenting health information, and certain surveys have revealed them to be the most popular with radio listeners of all the dramatic forms. A study by Dr. Turner of the Massachusetts Institute of Technology, and two of his associates, revealed that plays, questions-and-answers, talks and dialogues, in the order named, were the types of health broadcasts preferred; but plays are the most difficult to produce of the 4 types of programs. Many radio stations prefer that educators stick to talks, for fear that their more pretentious efforts will fail. For a radio play to succeed, it must be well acted by competent players, carefully rehearsed and produced with all the trimmings of music and sound effects. I would advise no health workers to attempt to produce radio plays unless

they have the time and the talented performers necessary to do a good job.

In the production of programs, the staff at any station will guide the beginners and carefully watch over the more experienced. They will tell you the distance from the "mike" to stand, the voice level to assume, how to fade in or out in plays. The sound effects man will usually be on deck if you need him, and all he will require is an extra copy of the script with the sound business marked in it at the right points. If you are producing a play, however, the effects you want to get over, the speed of the production, and the degree of emotion that is to be put into the reading of the lines is up to you. It is wise to have a producer for such a program, either yourself or some other, who is not acting or announcing and is free to listen to the program from the control room and make the changes in accent that mark a well produced play from a sloppy production. It is wise, too, to have a producer for the other types of programs, to keep check on the speed and to help the speakers over their nervousness.

Actors for a radio play are chosen entirely by their voices. Radio station production managers never see their actors while casting a play, they only hear them. A voice does not always suggest the person of its possessor. The little boy you hear on the radio may be a woman of mature years and tremendous size. With experience you can to a degree pick voices without hearing them on the "mike"—at least you can tell generally whether they will be good or bad and the type of voice. But when you hear them over the "mike" you will find that frequently you have been mistaken and the person you had in mind will not do at all. It is therefore wise to cast a play well in advance, with tryouts at the studio.

It is equally important to try out the voices of speakers for the simpler types of radio programs, since 15

minutes of an irritating voice is rather hard on the radio listeners—or would be hard if they would listen. I know it is not always possible to bring a proposed speaker around to the station days in advance and try his voice—and it is even harder to tell him he will not do after he has counted on presenting the talk and told all his friends, and when he may be your superior in your professional field. But remember this, you might just as well have no program as a poor one.

When first picking your speakers, remember that the biggest names among health workers are usually no better known to the radio public than those who are at the bottom of the ladder of fame in their profession, and those at the bottom usually have more time to work on programs, are more willing to take suggestions, and are more apt to turn out a true, dramatic radio program than a scientific address designed for their peers, or an elementary talk that makes the radio listener feel he is being given crumbs by the mighty sitting around the table of science.

Radio is the most potent medium at our command through which we

may reach the people of this country, give them the information we have at hand, and motivate their actions toward a new way of life.

Radio time is available to us, or can be made available for our use when we can show sufficient public interest in our work, or can show unification of health groups sufficient to end the conflict of educational policies and information.

Better radio time will be available when we are able to produce programs of a professional quality, entertaining to and desired by the public. In attempting to reach this last goal, we can do no better than to study the productions of commercial radio sponsors, for they at least know better than we the desires of the public. After all, the public has paid them well.

Do not think that all we need to do is sugar-coat our information. That is begging the issue. If our radio programs fail it will not be because of the public's lack of interest in anything but the froth of human knowledge, but because we are ignorant of the techniques of radio production and because we lack imagination.

THE SCHOOL NURSE IN HEALTH EDUCATION

RUTH E. METTINGER, R. N.

Director, Public Health Nursing

All over the world health education is increasing in importance and health is coming to have a larger place in the school curriculum. Likewise education is coming to play more of a part in the promotion of health. Nurses realize more than ever the necessity for knowing newer methods in this particular phase of the work. Since the school is the one spot where a real cross section of a wide group can be found, we have more or less centered our activities in the school.

The field of health education is so broad and varied it offers a real

challenge to every department in the school. Therefore, the success of health education is eventually in the hands of school teachers. The nurse has always made a contribution to health education, but her concept of health education today is quite different from what it used to be. She should be part of the school structure and not an isolated individual who simply takes temperatures, takes sick children home, bandages fingers, or makes morning inspections. The health program should not be left entirely in the hands of the individual, but the nurse should be able

to assist the teacher in incorporating health knowledge, habits and skill into the curriculum.

The health program of the school should be planned by the teacher, as well as the nurse. The nurse should make every effort to understand the teacher's viewpoint and problems. The attendance of the nurse at teachers' meetings is a splendid way of exchanging ideas and discussing outstanding problems, which every classroom has.

Every school tries to provide an environment that will be safe from accidents. The nurse works out with the teacher a plan to provide a first aid room, teaching first aid to the children and making them responsible for all first aid cases. So often parents will send children to school expecting an abrasion to be dressed there instead of at home. Habits should be formed to have these abrasions covered before leaving home.

During the health examination, the child as well as the parent should be expected to participate. He should be encouraged to ask questions about his examination and should be questioned about his own ideas of health practices. Examinations offer an opportunity to secure from the parent or child valuable information about health practices which will help the school in the functions of health guidance.

Many of the schools have thought it necessary to make a rapid examination on every child every year, but it has been found much more advantageous to give a more thorough examination two or three times during the school career of the child rather than one superficial examination every year. A superficial examination with little or no time to confer with the parent, child or school will be of little value.

The teacher can be of great assistance in the correction of defects. Each year a large number of children come to school with defects which

should have been avoided and can be corrected. The teacher and nurse working with the parent and children can obtain the desired corrections. The teacher can make her dental education program so effective children will wish to consult their dentist and eat the proper food which helps to develop strong teeth.

The Parent-Teacher Association has taken an active part in the health of the preschool child, preparing him for the entrance to school. The necessity of preparing the preschool child for school emphasizes the need for the nurse to make the family the unit through which to carry on all health work.

As the teacher evaluates her work in the classroom, the nurse must evaluate her home teaching; and as the teacher must know the ability of her students, so must the nurse know on whom she can depend, as often orders must be carried out between visits. The nurse has to establish a common basis of understanding in the home.

In school nursing the nurse should learn to choose easily her visiting load. It should be remembered she is the nurse not of the school, but of the school child and the family.

The aim of the teacher in school is to teach so well that the student will be able to guide his own learning, and the aim of the nurse is to teach the family to assume their own responsibility for the child and independence of her.

A beloved pioneer in public health nursing, Mary S. Gardner, says: "The school nurse is already a vital part of one of the most important of our national institutions. Through her work American children are physically fitted to make use of the education that in its turn fits them for the responsibilities of citizenship. May she play her part in making of the American school an institution where bodies as well as brains are developed for a life of usefulness."

BUREAU OF VITAL STATISTICS

EDWARD M. L'ENGLE, M. D., *Director*

BIRTHS AND BIRTH RATES

The total number of births in Florida during the year 1937 was 29,488. With one exception, this was the greatest number of births reported during the last ten years. In 1928, the total was 29,776.

The birth rate for 1937 was 17.7 which is higher than the rate for any year since 1932, when the rate was 17.9. The rate among whites for 1937 was 17.3; the colored rate being 18.5.

The following tables show the total births, total rate, white rate and colored rate for the ten years 1928-1937 and the total number of births and births by color, by counties, for 1937.

The accompanying graph shows a comparison of the birth rates for Florida and for the United States for

the years 1928-1936. The 1936 United States rate is the latest available. One of the factors which influences the birth rate is the economic status of the people. It will be noticed that there is an unbroken decrease in the United States rate from 1930 to 1933, with the rate holding fairly even for 1929 and 1930. In 1931 and 1933, the Florida rate and the United States rate are identical. There is a slight rise from 1933 to 1934 but in Florida, the rate was higher in 1935 than for the United States and was higher still in 1937, while the United States rate has continued to decline and in 1936 had almost reached the depression low of 1933.

It is of interest to note that in 1937, births exceeded deaths by 8,530.

TOTAL BIRTHS AND BIRTH RATES, RATES BY COLOR PER 1,000
POPULATION, FLORIDA, 1928-1937

YEARS	TOTAL BIRTHS	TOTAL RATE	WHITE RATE	COLORED RATE
1937	29,488	17.7	17.3	18.5
1936	28,084	17.1	16.9	17.5
1935	28,049	17.4	17.1	18.0
1934	26,694	16.8	16.5	17.6
1933	25,681	16.5	16.0	17.9
1932	27,411	17.9	17.4	19.1
1931	27,033	18.0	17.5	18.9
1930	26,991	18.2	17.8	19.3
1929	26,853	18.8	18.2	20.1
1928	29,776	21.5	21.3	22.0

BUREAU OF VITAL STATISTICS

EDWARD M. L'ENGLE, M. D., *Director*

TOTAL BIRTHS BY COLOR AND BY COUNTIES, FLORIDA, 1937

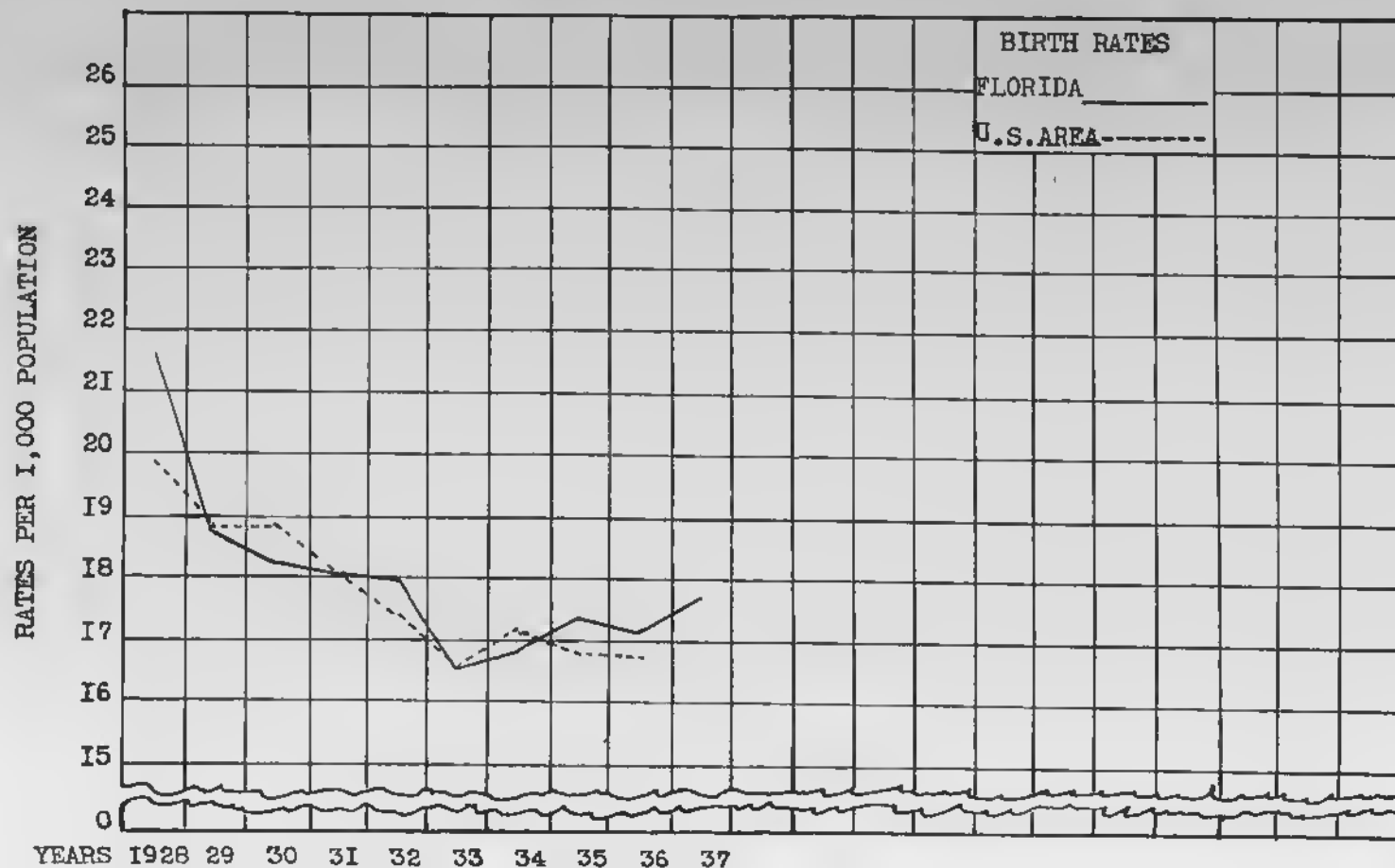
COUNTIES	BIRTHS		
	TOTAL	WHITE	COLORED
State	29,488	20,559	8,929
Alachua	795	408	387
Baker	197	138	59
Bay	477	398	79
Bradford	206	147	59
Brevard	186	119	67
Broward	488	239	249
Calhoun	207	177	30
Charlotte	48	38	10
Citrus	101	65	36
Clay	100	67	33
Collier	47	37	10
Columbia	373	218	155
Dade	3,175	2,430	745
DeSoto	177	150	27
Dixie	120	85	35
Duval	3,107	2,166	941
Escambia	1,267	1,030	237
Flagler	51	14	37
Franklin	140	89	51
Gadsden (Ex.)	583	220	363
State Hospital	13	10	3
Gilchrist	124	97	27
Glades	37	28	9
Gulf	98	58	40
Hamilton	255	161	94
Hardee	177	167	10
Hendry	66	47	19
Hernando	118	83	35
Highlands	189	145	44
Hillsborough	2,503	2,048	455
Holmes	342	331	11
Indian River	167	121	46
Jackson	785	469	316

BUREAU OF VITAL STATISTICS

TOTAL BIRTHS BY COLOR AND BY COUNTIES, FLORIDA, 1937—
(Continued)

COUNTIES	BIRTHS		
	TOTAL	WHITE	COLORED
Jefferson	305	70	235
Lafayette	87	81	6
Lake	488	331	157
Lee	312	260	52
Leon	594	244	350
Levy	216	146	70
Liberty	90	60	30
Madison	372	181	191
Manatee	385	242	143
Marion	537	237	300
Martin	60	35	25
Monroe	202	155	47
Nassau	161	91	70
Okaloosa	288	255	33
Okeechobee	54	46	8
Orange	893	684	209
Osceola	141	108	33
Palm Beach	911	549	362
Pasco	240	207	42
Pinellas	974	750	224
Polk	1,469	1,147	322
Putnam	354	225	129
St. Johns	342	205	137
St. Lucie	187	118	69
Santa Rosa	339	286	53
Sarasota	233	168	65
Seminole	322	145	177
Sumter	171	100	71
Suwannee	412	266	146
Taylor	178	103	75
Union	101	87	14
Volusia	705	494	211
Wakulla	87	42	45
Walton	267	219	48
Washington	283	222	61

CENTRAL BUREAU OF VITAL STATISTICS



WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



BUREAUS AND DIVISIONS AT JACKSONVILLE

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District and County Health Work.....	A. B. McCreary, M. D.
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Mark F. Boyd, M. D., Tallahassee..... Rockefeller Foundation

ENTOMOLOGY

W. V. Rieg, Ph. B., Orlando..... U. S. Bureau Entomology



FLORIDA

HEALTH NOTES



PUBLIC HEALTH DENTISTRY

Florida State Dental Society and Public Health

Relationship of the Doctor of Dental Surgery
to the Medical Doctor

Dental Service of the Florida State Hospital

Dental Health Education

Tenth Annual Meeting of the
American Public Health Association

The Florida State Dental Society is fifty-five years old. From its inception to the present time there has been incorporated in its constitution and by-laws the following paragraph, which best illustrates our attitude toward public health:

"To advance the dental profession in education, science, . . . ; to encourage dental and oral research . . . ; to promote the standard of dental education; to promote the usefulness, honor and interest of its members; to enlighten and direct public opinion in regard to oral hygiene and advanced scientific dental service; to encourage and participate in civic health work along dental lines; to advocate proper dental legislation and the enforcement thereof."

From the foregoing paragraph, our members have been encouraged to actively participate in their local health problems, from such angles as their experience and training would be of value to the general good. We have long recognized that the proper dental care of children reduces considerably the incidence of local and systemic diseases and pursuant to this we have by local units and with the cooperation of this Society established free clinics for the dental care of children.

This Society which comprises 70% of the registered dentists of our State, has through its code of ethics, and by legislation which it has sponsored, assisted materially in creating a standard of dental practice which has resulted directly to the benefit of the inhabitants of our State.

At the present time we have Committees completing the final details of a program to extend dental health service far beyond its present confines, and in such a way that these extended services will be under the supervision of organized dentistry.

The Florida State Dental Society wishes to assure you that it is ever willing to cooperate with other recognized health services in matters pertaining to public health.

ROSCOE D. CUMMINS, D.D.S., *President*

Florida State Dental Society.

FLORIDA HEALTH NOTES

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THE FLORIDA STATE DENTAL SOCIETY AND PUBLIC HEALTH

LLOYD N. HANLOW, D.D.S., *Director*
Bureau of Dental Health

Dr. Ernest A. Branch, a widely known dental educator, has said, "Public health is the aggregate of individual health. As long as the individual's health is confined to the individual over the river we allow him to do as all our friends have done—the best he can. But, when individual health is taken collectively and influences the health of others, it becomes a problem of the whole and is termed public health. When the health of the public affects us economically or socially, or in terms of our physical well-being, we take notice and become vitally concerned."

The Florida State Dental Society has long realized that any disease which affects a large proportion of the population is a subject of vast importance from a public health point of view. It is an accepted fact that public health is one of their problems; that it must be approached broadly, and that the dental profession must work with well established organizations already active in the field of public health and preventive medicine.

The Florida State Dental Society, knowing that the accumulated knowledge of the years as it pertains to the question of health, must be made available to the citizenry of this state and that it is only through the medium of organized public

health departments that we can realize progress in the prevention of disease, requested the Florida State Board of Health to include dental health in their program. The Bureau of Dental Health was organized in September 1936. At that time 16 states in the Union had some type of dental health program incorporated and correlated with their state boards of health. Today there is a total of 38 states in which the boards of health include a dental health bureau. The remaining states at the present time are depending upon their organizations to carry on the work, however, all of them are working toward the establishment of full-time dental health units within their borders. This should become an accomplished fact within the next year.

Too much praise cannot be given the officers and members of the Florida State Dental Society for their untiring efforts in teaching dental health to the people of Florida, both before and since the establishment of the Bureau of Dental Health. For years they have held inspection programs and given health talks to the school children of our state. They have given freely of their services in caring for the underprivileged children in our schools. By their efforts full-time clinics have been established in many counties of the state. In 1930 the Society compiled and dis-

tributed a program for teaching dental health in the schools. The officers and committees have been most active with their program of "prevention by education."

The program of the State Dental Society meeting, to be held in Jacksonville November 9, 10, 11 and 12, shows the modern trend of thought among the members of the dental profession toward prevention of dental disease.

On this program will be Dr. Marcus L. Ward, President-Elect of the American Dental Association, who will make his first visit as the new President; Dr. Russell W. Bunting, Dean of the University of Michigan; Dr. Clyde H. Schuyter; Dr. Karl W. Knapp, and Dr. Merritt G. Swenson,

of the University of New York, all nationally known lecturers and clinicians.

During the week of the meeting radio broadcasts and talks at the luncheon clubs will be given on the following subjects: "Dentistry in Relation to Public Health," "The Prevention of Dental Caries Through Diet," "Mouth Hygiene for the Prevention of Gingivitis and Pyorrhea," and "Why Take Candy From Your Child."

From advance registrations it appears that over 300 dentists will attend this meeting. The Bureau of Dental Health invites them to visit the State Board of Health and to become better acquainted with the work it is doing.

THE RELATIONSHIP OF THE DOCTOR OF DENTAL SURGERY TO THE MEDICAL DOCTOR

W. H. SPIERS, M. D., Orlando

President Florida Medical Association

Any discussion concerning Doctors of Dental Surgery and Doctors of Medicine usually begins historically by reminding us that, in the days of the early Egyptians, there were "practitioners for the eyes, for the head, some for the teeth, others for the belly and for occult maladies; that Hippocrates invented dental instruments, and established principles for treating fractures of the jaws that are forgotten with each generation and rediscovered with all wars." This usually recalls the interest in the mouth shown by Celsus, Fallopius, and a host of other great medical pioneers; quotations from Shakespeare, Chaucer, Moliere, and the philosophers, and finally winds up in a state of ecstasy over the barber-dentist-surgeon, Ambrose Pare, and the contribution of general anesthesia by the dentists, Wells and Morton.

The dentist of today is trained in the recognition and treatment of diseases of the mouth, jaws, and teeth. The majority of dentists are in general practice, while a smaller number devote their practice to dental spe-

cialties, some in the mechanical fields, like porcelain, crown, bridge, and plate work; others practicing periodontia (the treatment of diseases of the gums), orthodontia (the art of regulating teeth), and finally, oral surgery.

Dentists believe in a medically educated dentist and not in a medical doctor practicing dentistry as a specialty. Because the degree—M. D.—does not give practical dental experience, while the modern dental school gives the dentist a medical foundation. One often hears a physician remark that he has examined the patient's mouth, and that certain teeth should be removed because they carry a gold crown, or because a tooth is discolored. Such findings do not condemn a tooth, because it may be good and serviceable, despite its condition. Today, the examination of the mouth is not complete when using only a mouth mirror and an explorer, but must include, besides the ordinary clinical examination, an intra- and extra-oral x-ray study, with vitality test, bite-wing films, and

transillumination. Such, the medical doctor cannot accomplish because he lacks the proper training.

The dentist also believes in the principles of periodic health examinations of the mouth as well as any other part of the body. In fact, dentists have appreciated this for more than fifteen years and have created the "dental hygienist" whose duty it is to subject a patient's teeth to prophylactic treatment and call the dentist's attention to any pathological condition.

To prove the necessity of cooperation between the professions of dentistry and medicine and their respective specialties, it is important to call attention to individual cases. Vincent's infection of the mouth, for instance, cannot be treated by the medical doctor alone, even if the tonsillar regions are affected; the mouth must be left to the periodontist because the instrumentation of the free gingiva is the most important part of the treatment with which the medical doctor is not familiar.

White at present the oral surgeon acts as the dental consultant, particularly where oral focal infection is considered, this duty will, in the near future, with improved dental education, be regulated to the general dental practitioner. At any rate, it should never be a question of instructing one or the other to do this or that, but whatever treatment is outlined for a patient should be the result of a thorough discussion.

Is the oral surgeon justified in operating without consulting the family physician in the case of heart, lung, kidney, or other disease in the field of internal medicine? No matter how well educated medically the oral surgeon may be, the pediatrician will always prescribe the formula for the feeding of the infant to be operated upon for hair-lip or cleft palate. Ophthalmology, when dealing with a possible oral focus; rhinology, when in doubt about the etiology of a sinus infection; and otology, where there are referred pains, are branches of medicine that assist dentists in

the proper care of their patients. Today, the oral surgeon acts as a diagnostician and therefore, certain soft-tissue lesions of the mouth necessitate an examination of the skin and the mucous membrane by the dermatologist. The general surgeon in case of serious accident; the neurologist in tri-facial neuralgia; and the obstetrician, where lesions of the gingiva appear during pregnancy, must be consulted in the interest of our patient. Finally, we come to the roentologist, when we suspect an expression of facial-bone lesions in other parts of the skeleton or a metastasis to the lungs or distant regions;—the importance of seeking advice and treatment from the specialist in radium and x-ray therapy is then evident.

The dissemination of knowledge by exchange of thought and experience among oral surgeons and other medical and dental specialists, as well as among general medical and dental practitioners, at frequent conferences, where cases can be reported or presented and discussed freely and honestly by all participants, would practically reach the ideal, if the effort were supported by an institute where not only all types of pathological laboratory examinations could be made, but which would also act as a registry for the collection of material for the further study of any subject in this field.

It is my conviction that a more closely knit relationship between the doctor of dental surgery and the medical doctor is needed. Just as the dentist studies the patient's system of mastication, so the medical doctor studies his other systems. These anatomical divisions—such as the teeth and mouth, on the one hand, and as the case may be, the heart, vessels, and kidneys on the other—cannot be arbitrarily thought of and treated as separate units, but representing as they do integral parts of one coordinated physiological mechanism, must be so considered and treated.

THE DENTAL SERVICE OF THE FLORIDA STATE HOSPITAL

A. F. DOUGLAS, D. D. S.

*Chief Dentist, Florida State Hospital
Cattahoochee, Florida*

The Florida State Hospital, with at present more than 4,300 committed patients, is the only institution in the state for the care of the indigent insane. It is maintained by taxation and legislative appropriation, and governed by the Board of Commissioners of State Institutions made up of the Governor and the six members of his cabinet.

A consideration of its present dental service must necessarily involve some history of its inception and its development over the period of the last twelve years. Prior to 1926 a dentist had been employed, and emergency dental treatment had been given the patients, but the growth of the hospital had been so great that the service was inadequate, and in that year the dental service was reorganized on as comprehensive a basis as resources would permit.

At that time, the equipment consisted of a single chair outfit, none too modern or efficient, and practically no laboratory or reception room facilities. Additional space was obtained out of which was developed three operating rooms, a small laboratory, sterilizing and scrub up space, desk room, a modest reception room and record clerk accommodations.

In these quarters, the service functioned for nearly seven years, and although it rapidly outgrew them, they housed it during the development and broadening of the work to its present scope, and out of the experience of these years, with inadequate facilities, came the inspiration and the information necessary for the planning of the present Infirmary, finished and occupied several years ago.

The clinic consists of four complete operating rooms, a laboratory, developing room, sterilizing room, personal office, record clerk's office, reception rooms for white and colored patients and toilet and storage facilities.

Aside from \$1,000 for an x-ray machine, there has never been a special appropriation for building or equipment for this service. From the general maintenance fund, out of which the institution as a whole is operated, this infirmary was rebuilt and equipped.

Dr. Arthur H. Ruggles, Superintendent of the Butler Hospital, Providence, Rhode Island, who several years ago at the instance of the Board of Commissioners of State Institutions and the State Board of Public Welfare, made a survey of the Hospital, mentions the dental service in his report as follows: "The Dental Infirmary and its equipment and personnel is one of the finest I have seen in any mental hospital in America. I wish to add that in its economy of building and its efficient arrangement it might well serve as a model for all hospitals."

THE PERSONNEL

From one dentist in 1926, the personnel has been gradually added to until it now comprises a Chief Dentist, three Assistant Dentists, one Laboratory Technician and helper, for Dental Assistants and a Record Clerk. The Technician and the young women Assistants and Record Clerk, who were all taken from other departments of the Institution, have been trained in their work over a period of years and are highly efficient in their particular fields.

TIME SERVICE

At the outset, it was conceived that this service could be established and conducted on a basis comparable in methods and results to any dental clinic in any modern hospital. Moreover, it was realized that the inmates were confined through no fault of their own, with grave physical and mental illnesses, and powerless to dictate the treatment to be given them; which, of course, implied an obligation even more imperative than in a hospital where free agents were dealt with. The physical benefits to be derived from comprehensive dental treatment were obvious, and the hope was entertained that some contribution toward an improved mental condition could be made by this service. On this basis, then, the work was begun, and upon these ideals it has been developed to its present status, which embraces every phase of modern dental practice.

Each new patient is examined within a week of his arrival and is never lost sight of until the indicated dental treatment is completed, contact being maintained by appointment slips that follow him to any department or hospital ward of the institution. This examination is comprehensive as to "Conditions Found" and "Treatment Indicated" and these data, together with "Treatment Given" comprise the patient's dental record and are on file in the dental infirmary, as well as incorporated in and filed with his general case record, history, mental and physical diagnosis, medical attention, etc., and are available to those interested in him.

It is of interest to know that fully 90 per cent of these patients are co-operative for the dental examination when first seen, appearing in many instances, glad of the opportunity to have their mouths cared for and even requesting certain types of restorations and more or less immediate attention. A large percentage of them present a condition of marked oral sepsis and unhealthy soft tissues, with many teeth missing, unsanitary

fixed and removal bridges, faulty fillings, impacted teeth, etc., with only an occasional instance of a healthy and efficient mouth requiring no attention.

Therefore, the initial aim in each case is the immediate elimination of all pathology, removal of unsanitary and inefficient replacements, and thorough prophylaxis, to be followed by the restorative work indicated, as rapidly as the patient is mentally and physically able to receive it.

Extractions where indicated are done serially, thus avoiding unfavorable reactions in these already toxic cases. In consequence of this procedure and strict surgical asepsis, we are rarely obliged to hospitalize a case, and encounter surprisingly little postextraction trouble.

Fixed bridge work is used for the epileptics and extensively in other indicated situations, and removal pieces for patients able to care for this type of work.

Every sort of filling, cement, alloy, silicates; gold and porcelain inlays; cast gold and porcelain jacket crowns, etc., are made use of, being constructed with the same care and attention to esthetics as is common to modern private practice.

The dental service is of course, equipped for complete intra-oral and extra-oral x-ray examinations, and cases are freely examined for diagnostic and checking information.

Prophylaxis occupies an important place in the routine, including besides the removal of deposits and polishing of teeth, the treatment of all forms of soft tissue irritation and disease ranging from gingivitis and all manifestations of periodontal lesions, to acute Vincent's infection and pronounced oral sepsis from a variety of causes. Brushes and dentifrices are furnished the patients and constant effort is made to educate and encourage them in the care of the mouth.

The denture service has been a source of great satisfaction. When this work was begun, there were

many edentulous mouths and more being made edentulous constantly. It seemed questionable whether sufficient cooperation for the management of dentures could be obtained in mental cases to warrant the time and expense involved. No data were available in this connection, but the need for this work was so great that the dental service felt justified in proceeding with it on an extensive scale, even with an expectancy of comparatively meager success.

The results have more than justified the effort. Not only are these dentures efficient in from 70 to 80 per cent of the cases, but the cooperation given by the patients during the construction and in the wearing of the plates, and their pride of possession and gratitude for the service is greater than that seen in private work. Moreover, this service is without a doubt an inestimable contribution toward the return to physical health in many of these cases. In this connection the laboratory is equipped and its personnel trained to produce every type of mechanical replacement common to modern dentistry.

The medical staff consists of the chief physician and fifteen assistant physicians assigned to the various medical and surgical services. The association between the medical and dental staffs is very close, and the cooperation between them complete in diagnosis and treatment, and in surgery of the mouth and jaws.

A twelve week's course of lectures on mouth hygiene and dentition is given each year by the chief dentist to the senior class of student nurses of the training school operated in connection with the hospital. This course is enthusiastically received, and perhaps adds one more item to the prophylactic education of the lay people through these young women, as well as contributing something to their professional information and equipment.

Dental service is maintained also for the employees of the institution. These workers are for the most part

on small salaries, and, in the light of this fact and from the point of view of their physical comfort and efficiency, are entitled to dental attention. In an effort to provide as largely as possible for them, they are given all the time during which the patients are not available, and, of course, without charge. Furthermore, any emergency that arises from any source at any time is cared for.

The dental service is responsible, moreover, for the dental health of the 500 inmates of the Florida Industrial School for Boys at Marianna. Several years ago a one-chair set-up was placed in that institution, and a dentist and a nurse from the State Hospital's personnel spent one and sometimes two days each week on that service. This is a very gratifying phase of the dental service's work, presenting an opportunity, as it does, to aid in the physical rehabilitation of these potential future citizens of the state.

The foregoing will convey some idea of the scope of the work at this time. This complete service for the patients like everything provided for them in the institution, is given without cost; nor, let it be emphasized, is this department restricted as to the type of work furnished, or limited as to the quantity or quality of the materials used to produce it.

Of these last facts the dental service is very proud. In few state maintained institutions are the patients given as complete dental service without cost. In many states only emergency or pathological conditions are cared for free, all replacements being contingent on the patient's or his relatives' ability to pay for them. Furthermore this broad service covering every phase of modern dentistry is attractive to the highest type of young dentists, furnishing as it does a valuable internship to supplement their college training, and the dental service considers it not one of the least of its services that it can offer these young men this opportunity in its clinic to

become finished operators and technicians fitted to take their place in successful practice in the communities of the state.

RESULTS

That the service furnishes a substantial contribution to the comfort as well as to the general physical improvement and recovery of these patients there can be no doubt. A wealth of material is at hand in case histories to substantiate this fact, but systematic reaction to corrective dentistry is too well recognized to require demonstration in this discussion.

Nor is it the intention to present here evidence of mental cures or near cures as a result of this service. Observations over the past twelve years convince us that it plays a part both direct and indirect in the improvement of and recovery from some of these mental conditions.

Psychiatrists have determined that the most common sites of focal sepsis which contribute to toxic psychosis are in the order named, the mouth and teeth, rectum and anus, cervix, pelvis and tonsils.

In these cases of toxic psychosis, it is plain that every condition which weakens the defense promotes an abnormal viewpoint; whereas, every condition which builds up resistance keeps the patient closer to mental reality. It would seem, then, that there exists a direct relationship between dental disease and that large group of psychoneuroses and psychoses of toxic character, and it is noticeable that almost coincidentally with the elimination of areas of infection and impaction in the mouths of the patients committed with psychoses due to alcohol, drugs and other exogenous toxins, there occurs a clearing up of the mental fog, and these patients rapidly take on weight and become cheerful and normal again.

In the psychoneurotic and psychopathic personality types, it can be said that the elimination of disease

and pain from the mouth area contributes one of the stabilizing influences that these cases need so badly.

Even the senile cases show improvement in disposition, poise and outlook after the removal of diseased and non-functioning members, and take great pleasure in and express appreciation for artificial restorations.

Finally, there is apparently some evidence at hand of the not too remote influence of dental therapy in even the more complex mental diseases. In any event it cannot be gainsaid that the relief of dental pain and distress, and the restoration of mouth efficiency by esthetic replacements, at least exerts a benign effect in all mental conditions, promoting dispositional changes for the better.

CONCLUSIONS

1. It is possible to organize the dental service in state mental institutions into modern, efficient clinics, and to extend to those committed to these hospitals the same care and the same variety of operations and restorations that are common to the best sort of private practice. Moreover, these patients are capable of cooperating in this treatment and are most grateful for it.

2. The contribution of this work to restored physical health and improved mental equilibrium in these cases is a demonstrated fact.

3. The time is past when the mentally deranged are considered a dangerous burden to the state, to be merely confined for the safety and protection of the public. Modern science has determined them to be sick people, and modern institutions are using every known method for their recovery and restoration to health and usefulness, or the proper and humane care of those incurable. Men of high character and ability in the professions have been attracted to this work by its humanitarian aspect, and will be increasingly attracted as the standards are raised and opportunity is thus offered by

large institutions for research and wide experience.

4. This service would seem to offer a contribution to the general cause of Public Health in several ways:

(1) The contribution that is common to all sincere efforts in the direction of preventive and corrective dentistry in private work, perhaps more pronounced in this instance because of the definite condition of mental and physical

depletion in which all our cases are received.

(2) The educational values regarding prophylactic and preventive dentistry that are offered to the student nurses and through them to the public at large by the lectures in Mouth Hygiene and Dentition.

(3) The unquestioned contribution to Public Health of the routine of dental care and education of the 500 underprivileged inmates of the Florida Industrial School for Boys.

DENTAL HEALTH EDUCATION

C. WILLARD CAMALIER, D. D. S.
President American Dental Association

The members of the dental profession realize that they are confronted with a very serious public health problem. Dental defects are the most prevalent of all diseases with the possible exception of the common cold.

A survey of 1,500,000 school children made in 1933-34 by members of the dental profession in cooperation with the United States Public Health Service, in which 4,800 dentists in 26 states contributed over \$2,000,000 in time and service, disclosed that approximately 90 per cent of American children of school age suffer from dental decay. Studies on a smaller and more detailed scale made subsequent to this large survey confirmed these findings.

Until further dental research demonstrates some method whereby we can prevent dental disease, the objective of the dental profession is to control it in its incipency. It is universally recognized by those who have studied the problem that the general health is often adversely affected by dental disease.

The American Dental Association has given serious consideration to this phase of the public health problem and believes that the logical ap-

proach is through adequate prenatal and postnatal nutrition and medical care, plus the detection and correction of dental defects early in childhood. This must be brought about largely through education. It has been demonstrated that if adequate dental service is provided the preschool child, the occurrence of complicated dental diseases will be materially reduced. If this type of program is followed, the ultimate cost to the community for proper dental service will be greatly minimized.

Realizing that the prevention of serious dental defects as suggested will reduce some of the catastrophic and other serious systemic conditions in later life, as well as add to the comfort and appearance of the citizens of the country, the American Dental Association during the past two years has laid tremendous emphasis upon dental health for the child. In 1937, the Association adopted as its theme the slogan, "Preventive Dentistry in the Interest of Health." In 1938, it adopted the theme, "Dental Health for American Youth." Under these inspirational themes, the following important measures have been accomplished:

(a) State and component dental

societies have intensified their preventive dental programs.

(b) The Association has furnished the leadership in having divisions or bureaus of dental health established in State Boards of Health, tripling the number in three years. To date, thirty-four states have such divisions.

(c) State and component dental societies have been stimulated to cooperate with the National Congress of Parents and Teachers in their summer round-up campaigns.

(d) Realizing that the technique of handling and performing dental operations for children is intricate and of a highly specialized nature, the Association has accelerated the conduct of refresher courses in children's dentistry. These courses have already been conducted for dentists in Georgia, Utah, Oregon and Indiana, where they have been enthusiastically attended and received. Similar courses are now being planned in many of the other states for the coming year.

(e) Under American Dental Association leadership, courses in dental health education are increasing in teachers' and nurses' training schools.

(f) The Association has requested the State and component societies to inaugurate dental health programs in all child-interested groups, such as the Parent-Teachers Association, Boy Scouts, Girl Scouts, Camp Fire Girls,

4-H Clubs, American Red Cross and others. This is now being done.

(g) The Association through its Bureau of Public Relations has developed and distributed large quantities of dental health educational material to the public through schools, boards of education, boards of health and other channels.

(h) The Association through its Research Commission is now making an intensive study of all dental literature pertaining to the problem of dental caries, in an effort to facilitate the discovery of the etiology of the disease. It is hoped that the United States Public Health Service will, in the very near future, initiate studies on the problem of dental caries. To further stimulate this activity, it is the desire of the American Dental Association to establish a fellowship on dental caries in the National Institute of Health.

(i) The dental profession realizes that some provision must be made to provide emergency service such as the relief of pain and the elimination of infection at community expense for those adults of the present generation who cannot provide this service for themselves.

As previously stated, however, the dental profession believes that the long-term preventive program for children is the only feasible and practical program for the control of dental disease.

LIBRARY

The facilities of the library of the State Board of Health are available to the members of the dental profession of Florida. Any book, magazine or reprint in the Library collection may be borrowed. The Librarian of the State Board of Health will be glad to look up references to the literature, prepare bibliographies, or assist in the preparation of papers whenever such service is desired.

The book collection of the Florida

State Dental Society is housed in the State Board of Health Library. These books may also be borrowed by members of the Dental Society on request. The same rules for borrowing apply as apply to the State Board of Health Library. Material is loaned for a three-week period, and will be mailed to any point in Florida, at no cost except postage. Address requests for library service to the Librarian, State Board of Health, Jacksonville, Florida.

TENTH ANNUAL MEETING OF THE FLORIDA PUBLIC HEALTH ASSOCIATION

The Florida Public Health Association will meet at Hollywood, November 28-30 with the Hollywood Beach Hotel as headquarters. This is the first meeting to be held on the lower East Coast and a large attendance is expected. A program is being arranged covering a wide field of public health activity and papers will be read by men and women who can speak with authority on the particular subjects which they will discuss.

Among those who are expected to be present are Surgeon General Thomas Parran of the U. S. Public Health Service; Assistant Surgeon General C. L. Williams, also of the U. S. Public Health Service; Dr. John Collinson, Acting Chief Statistician, Division of Vital Statistics, U. S. Bureau of the Census; Dr. Reginald Atwater, Executive Secretary of the American Public Health Association; Dr. A. E. Keller of the Medical School of Vanderbilt University, who will discuss the hookworm problem in Florida in which he has made extensive research; Dr. John Elmendorf, Director of Malaria Research in Escambia County which is being carried on under the joint auspices of the State Board of Health and the Rockefeller Foundation. Dr. Elmendorf will have an interesting report on this work. Thus, in these two papers will attention again be directed to two of the most pressing health problems of our state.

Dr. W. H. Spiers, President of the Florida Medical Association, will discuss public health from the standpoint of the practicing physician. Dr. J. N. Patterson, Director of the Laboratories of the State Board of Health, will give an evaluation of the more common serodiagnostic tests for syphilis. The possibility of the introduction by means of airplane travel of yellow fever into the United

States will be discussed by Dr. George N. MacDonell, Director of Health at Miami, who will describe the measures now in force there to minimize the introduction of yellow fever into this state. Dr. J. J. Taylor, State Chemist and President of the Association Dairy, Food and Drug Officials of the United States, will analyze the new food, drug and cosmetic act and its public health aspects. Dr. Leon Banov, Health Officer at Charleston, will have a paper on practicable public health. Mrs. Elizabeth Bohnenberger, Director of the Bureau of Health Education of the State Board of Health, will speak on health education in Florida, and Dr. Lloyd N. Harlow, Director Bureau of Dental Health, on dental health.

There will be one section meeting of the Public Health Nursing Section and two of the Sanitary Engineering Section. The first meeting of the Sanitary Engineering Section will be concerned with the problems of the municipalities; the second with general and rural sanitation. The Public Health Nursing Section meeting will be addressed by Miss Pearl McIver, Senior Public Health Nursing Consultant, U. S. Public Health Service; Miss Mary J. Dunn, Regional Consultant, U. S. Public Health Service, and Miss Anna Mae Sikes, State Nutritionist, State Home Demonstration Department, Tallahassee. The program of these two sections will cover most of the particular field with which they are concerned.

These are only some of the highlights of what promises to be an unusually interesting meeting. All general sessions and section meetings will be held in the Hollywood Beach Hotel, one of the show places among the tourist hotels of the East Coast. The hotel has arranged the very reasonable rate of \$4.00 a day, American

Plan, which means you will get a room and bath and three excellent meals for that price. In addition, the management is arranging a program of entertainment to suit all tastes.

There appears below a statement from the Hollywood Beach Hotel indicating the wide variety of entertainment which will be available to those in attendance.



This beautiful ocean-front estate at Hollywood, Florida, has been selected as headquarters by the Florida Public Health Association for a three-day conference to be held November 28, 29 and 30, 1938.

Ideally situated in a tropical setting of twelve acres, on the southeastern coast of Florida, the choice assures a successful meeting for every delegate and guest.

A complete, unique resort city under one roof, within only a few minutes' drive of glamorous Miami . . . brilliant entertainment in the Bamboo Room . . . dancing on the Sea Deck . . . tennis on the hotel's private courts . . . surf bathing . . . golf on the hotel's 18-hole championship course . . . special programs for the ladies . . . Keno . . . bridge, are some of the extra enjoyments offered to make this one of the most delightful vacations ever arranged.

BUREAU OF VITAL STATISTICS

EDWARD M. L'ENGLE, M. D., *Director*

Total Deaths by Color and by Counties, Florida, 1937

COUNTIES	DEATHS		
	TOTAL	WHITE	COLORED
State	20,958	13,435	7,523
Alachua	518	223	295
Baker	48	28	20
Bay	213	159	54
Bradford	81	48	33
Brevard	163	100	63
Broward	355	206	149
Calhoun	79	64	15
Charlotte	33	24	9
Citrus	79	45	34
Clay	97	63	34
Collier	37	16	21
Columbia	362	206	156
Dade	2,475	1,837	638
DeSoto	124	92	32
Dixie	62	37	25
Duval	2,423	1,314	1,109
Escambia	824	558	266
Flagler	37	15	22
Franklin	66	29	37
Gadsden (Ex.)	289	101	188
State Hospital	301	172	129
Gilchrist	24	15	9
Glades	25	18	7
Gulf	27	17	10
Hamilton	102	51	51
Hardee	85	74	11
Hendry	39	20	19
Hernando	65	41	24
Highlands	107	82	25
Hillsborough	1,909	1,382	527
Holmes	111	104	7
Indian River	86	56	30
Jackson	371	192	179

BUREAU OF VITAL STATISTICS

Total Deaths by Color and by Counties, Florida, 1937—(Continued)

COUNTIES	DEATHS		
	TOTAL	WHITE	COLORED
Jefferson	157	31	126
Lafayette	30	25	5
Lake	363	236	127
Lee	204	151	53
Leon	375	122	253
Levy	112	60	52
Liberty	39	23	16
Madison	195	82	113
Manatee	242	159	83
Marion	419	186	233
Martin	45	30	15
Monroe	163	127	36
Nassau	114	43	71
Okaloosa	126	106	20
Okeechobee	17	12	5
Orange	790	567	223
Osceola	142	100	42
Palm Beach	770	430	331
Pasco	165	127	38
Pinellas	1,378	1,202	176
Polk	831	594	237
Putnam	261	131	130
St. Johns	263	138	125
St. Lucie	104	69	35
Santa Rosa	129	98	31
Sarasota	203	148	55
Seminole	248	111	137
Sumter	83	57	26
Suwannee	181	97	84
Taylor	113	56	57
Union	87	55	32
Volusia	696	465	231
Wakulla	59	29	30
Walton	136	104	32
Washington	101	66	35

WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



BUREAUS AND DIVISIONS AT JACKSONVILLE

Directors

Accounting.....	G. Wilson Ballzell
Dental Health.....	Lloyd N. Harlow, D.D.S.
District and County Health Work.....	A. B. McCreary, M.D.
Drug Inspection.....	M. H. Doss
Engineering.....	G. F. Callett, C.E.
Epidemiology.....	Dan N. Cane, M.D.
Health Education.....	Elizabeth Bohnenberger
Laboratories.....	J. N. Patterson, M.D.
Maternal and Child Health.....	F. V. Chappell, M.D.
Public Health Nursing.....	Ruth E. Mettinger, R.N.
Tuberculosis.....	A. J. Logie, M.D.
Veneral Disease Control.....	L. C. Gonzalez, M.D. (Acting)
Vital Statistics.....	Edward M. L'Engle, M.D.

DIRECTORS FULL TIME COUNTY HEALTH UNITS

Alachua County.....	L. J. Graves, M.D.
Alford County.....	L. J. Graves, M.D.
Escambia County.....	A. L. Stebbins, M.D.
Jackson County.....	R. N. Joyner, M.D.
Broward County.....	J. W. McMurray, M.D.
Taylor County.....	C. A. O'Quinn, M.D.
Gadsden County.....	K. K. Warner, M.D.
Madison County.....	James B. Parramore, M.D.
Pinellas County.....	W. H. Pickett, M.D.
Hillsborough County.....	J. S. Spoto, M.D.
Franklin-Duff County.....	W. H. Bell, M.D.
Highlands County.....	C. W. Pease, M.D. (Acting)
Orange County.....	W. P. Rice, M.D.
Lake County.....	Terry Bird, M.D.

KEY WEST
(MONROE CO. HEALTH
UNIT)

MEDICAL OFFICERS

Dist. 1. Marianna.....	C. W. McDonald, M.D.
Dist. 2. Jacksonville.....	I. E. Simmons, M.D.
Dist. 3. Doala.....	D. C. Witt, M.D.
Dist. 4. Bartow.....	C. W. Pease, M.D.
Dist. 5. West Palm Beach.....	Leland H. Dams, M.D.

MALARIA RESEARCH

Mark F. Boyd, M.D., Tallahassee.....	Rockefeller Foundation
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ENTOMOLOGY

W. V. King, Ph.D., Orlando.....	U. S. Bureau Entomology
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FLORIDA

HEALTH NOTES



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FLORIDA PUBLIC HEALTH ASSOCIATION

The Florida Public Health Association was organized in 1930, and from a membership of fifty-four in 1930 the Association has grown to the present membership of over 200. On June 15, 1932, the Florida Public Health Association became affiliated with the American Public Health Association.

The Tenth Annual Meeting will be held in Hollywood, at the Hollywood Beach Hotel, November 28-30, 1938. The committee has prepared a program of unusual interest. Several speakers of national note will address the convention, and various members of the Association have prepared papers dealing with every phase of the public health problem in Florida. There will also be special sessions devoted to public health nursing and to public health engineering.

City and county officials of Florida should see that their public health workers attend this convention. Every worker needs to hear other viewpoints on his problem, needs to meet and talk with those engaged in the same kind of work that he is doing. A convention such as this is a postgraduate study course that every Florida public health worker should take.

FLORIDA HEALTH NOTES

Official Monthly Publication of the

STATE BOARD OF HEALTH

JACKSONVILLE, FLORIDA

Est. 1890

HON. FRED P. CONE

Governor of Florida

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State Health Officer

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THE PRESS AND PUBLIC HEALTH*

W. A. McPHAIL, M. D., *State Health Officer*

The newspapers of Florida have long been one of the strongest forces in support of public health. The State Board of Health was established in 1889, one year after the disastrous epidemic of yellow fever in Jacksonville and surrounding territory. The Florida Medical Society had long been advocating a State Board of Health and the pros and cons of opinion on the subject were of course published in Florida newspapers.

Then in 1888 when the yellow fever came to Jacksonville and assumed alarming proportions, it became necessary to have some kind of central health authority. Dr. J. Y. Porter, an officer in the United States Marine Hospital Service was appointed in full charge with power to enforce whatever quarantine and other regulations he deemed necessary.

Nothing was known of the cause of yellow fever in 1888, and the only precautions which could be taken were quarantine and fumigation. Citizens from unaffected portions of Florida were not allowed to enter Jacksonville, and no Jacksonville resident could leave without permis-

sion of the health authorities. Naturally these restrictions set for the protection of the public health did not meet with favor in all quarters. People could not understand the necessity for such drastic orders.

To the newspaper editors of that time must go much credit for the part they played in informing all citizens of the reasons behind these orders of Dr. Porter's. A scrap book now in the possession of the State Board of Health contains news clippings from the papers of that year—1888. Almost without exception they supported the health authorities in the measures taken. Of course, yellow fever was news, headline news. The papers reported the firing off of a cannon in the streets of Jacksonville to dispel whatever germ it was that was causing this terrible epidemic. They reported the scores of persons who died of the disease. They told of the many courageous acts performed, the financial, medical and nursing help sent in from other sections of Florida and from all over the United States.

The newspapers kept up the morale of the citizens by giving them the

*Read before Florida Press Association Annual Convention, Lake Wales, Florida, November 17, 18, 19, 1938.

facts. They were even flippant about it, made jokes about it. One headline from a Florida editor said "Yellow Jack Meets Jack Frost Today." Which was his way of saying that the frost for which they had all been praying had actually come. They did not know why cold weather meant the end of the epidemic, but previous epidemics of fever had taught that this was so.

In 1889, when the State Board of Health was officially created by legislative act, the newspapers of the state enthusiastically supported Dr. Porter's appointment as Florida's first State Health Officer. The papers of that time are full of accounts of what the doctor had accomplished in the epidemic, and in both news columns and editorials they advocated his appointment and rejoiced when the Governor officially made him State Health Officer.

In many quarters it was believed that there was no necessity for a central health organization such as the State Board of Health. There were at that time a good many advocates of the "let things be as they always have been" system. But the majority of the members of the Florida Medical Association were in favor of the establishment of a central health authority, and with the aid of the newspapers of the state they were able to inform the citizens of the wisdom of such a move. Florida already had a large tourist business and the newspaper editors realized that from an economic as well as a humanitarian standpoint, Florida should be able to offer them the greatest amount of protection against disease epidemics.

That was in the 1880's—fifty years ago. And through the half century that has intervened, the newspapers have continued to lend aid and assistance to public health measures.

The work of public health authorities was at first to fight disease after it had reached epidemic proportions. Most of us here can remember such epidemics: smallpox, typhoid fever, diphtheria.

Then gradually the picture changed. Medical science found a way to prevent each of these diseases which had been great killers for centuries. Smallpox is preventable by vaccination. Typhoid fever is known to be caused by bacteria found in impure water and sewage; its means of prevention is known. No person need ever have diphtheria because immunization will prevent it. Many other infectious diseases for which there is as yet no effective preventative, can be kept under control by other measures. Thus the death rate from infectious diseases has lowered enormously in these fifty years.

But there still remain thousands of people—in our own state, as well as all others—to whom these preventive weapons are unknown and unpracticed. So the work of public health authorities has changed from the narrow groove of stopping epidemics once they have reached large proportions to the work of informing all people of ways to keep well. We call it Health Education—making the people health conscious.

Today a community, in order to perform its duty to its inhabitants, must have a pure water supply, correct sewage disposal, adequate sanitation both in its homes and in its schools and in other public buildings. A community should have proper hospital facilities, should see that its mothers have the right care before and after the birth of babies. It should see that every child is protected by immunization against diphtheria, smallpox and typhoid fever. It should see that its citizens are informed about the ways to avoid tuberculosis.

All these things mentioned are questions of community or public health. The individual health of our citizens can only be improved when the common risk of these other things is eliminated.

If your children are attending a school where there is improper sanitation, they are exposed to the dangers of typhoid fever and other intestinal diseases. They are quite likely to become infected with hookworms. A recent survey of our state showed that almost fifty per cent of our rural school children are victims of hookworm disease. This is a community problem, not an individual problem.

I have mentioned these things, because it is here, in this question of health education, that the newspapers have been and can continue to be such a powerful force for good. A local newspaper is the medium to which all the community turns. The thoughts expressed within its pages become the thoughts of its readers. The newspaper is a moulder of opinion; the newspaper can swing the verdict for or against public health to a large degree.

It is the accepted idea among public health authorities that the best way to achieve community health is through the medium of a local or county health department. Florida now has fifteen such county health departments. Other counties have indicated their desire to have this health service in the near future. Your leading citizens will undoubtedly ask your opinion and support of a local health department. There is much that you have done and much that you can do to help toward the establishment of this service in your counties, and the health department once established needs your continual support.

A glance at the file of news clippings at the State Board of Health

shows the enormous amount of comment that has occurred on the subject of local health departments. The majority of them have been favorable to the establishment of the departments. In a few cases there is evidence of misunderstanding as to the purposes behind such a move. I recall one case where the editor of a country newspaper published an article denouncing local health service. He termed it "just another racket," "just another way to create jobs." I believe that with a little thought given to the matter this editor would have been persuaded of the error in his opinion.

The history of local health departments in Florida and in other states plainly shows that the service once firmly established can do more to preserve and improve the community health than any other form of health work. Records have shown that a local health department is good business for the community. A healthy community is reflected in larger economic returns, in the greater individual happiness of its people.

When we think of the history of the remarkable economic development of Florida we are apt to think only of men like Henry B. Plant, Henry M. Flagler, and other well known figures who had so much to do with the prosperity of the state. In my opinion, the many editors of Florida newspapers must rank in importance with these men. For they have built up public opinion to believe in the importance of all progressive measures, both social and economic. Public health officials have asked much of you in the past and the record shows that the asking has not been in vain. We shall continue to ask your support in the future and we shall strive to be worthy of this partnership in the cause of public health.



THE CHRISTMAS CANDLE OF HEALTH

"How far that little candle throws its beams" . . . This well known speech of Portia's in *The Merchant of Venice* well applies to the theme on the 1938 Christmas Seal. And the second line may be changed to read—"So shines this little symbol for a healthier world."

The pleasant custom of lighting a candle in the window on Christmas Eve has come down through the ages and the mother with her two children on this year's Seal links that seasonal ritual with the idea of lamplight and home. The message of the Seal is "Protect your home from tuberculosis." To carry out the suggestion of earlier days the three characters are costumed in the formal style of the Victorian Era, the period when "Home" was idealized and holiday customs meant much to old and young alike.

The health situation in those days, however, was in a sorry state. That is why it is well to realize, as we buy and use the 1938 Christmas Seals, that we are living in an age when modern methods and intelligent co-operation have completely revolutionized health conditions in our country. In the middle nineteenth century, for example, people did not even know that tuberculosis was contagious. Although Dr. Robert Koch, a German physician, had discovered the germ that causes the disease in

1882, it was many years before the public learned the way infection spreads. In homes of those days any one who had consumption was considered doomed to death—he was kept indoors and watched over resignedly by his sorrowing family. When other members broke down with the "wasting sickness" they never realized they had been infected by the coughing victim—they believed tuberculosis was inherited. The treatment prescribed then by the best physicians was exercise or an ocean voyage, plus many tonics.

In 1885 Dr. Edward L. Trudeau established modern sanatorium treatment of tuberculosis in this country and rest became recognized as all-important. Today we have advanced still further and through the tuberculin test and x-ray are able to detect tuberculosis in its early stages, when cure in most cases may be effected.

We are privileged indeed to be living in this healthier world. The death rate from tuberculosis, for years the leading cause of death, has been cut more than two-thirds since the turn of the century. Each year finds the public better informed in the need for prevention. Yet tuberculosis still takes more lives than any other sickness during the ages between 15 and 45. Until that important

group of people have been protected, the educational work of the Christmas Seal must be continued.

The little candle on the 1938 Christmas Seal throws its beams far

out into the world. To those who are ill with tuberculosis it offers hope, encouragement. To others, it stands as the beacon of happy, healthful homes—homes free of tuberculosis.

FRONTIERS - - INFANT MORTALITY IN THE UNITED STATES, 1936*

Let's take the South, for instance.

Recently there came to the attention of the editors of "BAYERS" some very interesting and at the same time disconcerting charts from the Children's Bureau at Washington. Two of these charts show the maternal and infant mortality of this country by States. The strange thing about them is that they show a frontier of safety for mothers and babies within this country. To live on one side means that the risks for death and injury at childbirth are relatively few. To live on the other side means that the risks are materially increased. That frontier is formed by the Ohio and Missouri Rivers.

It seems queer, but there it is. Take a tier of states from Canada to Mexico, for instance. Begin with Michigan. There the infant mortality rate is 51; in Indiana, it is 51. In neighboring Ohio, it is 51, in adjacent Illinois, it is 47. We are on the north bank of the Ohio. But cross over where you please. It really doesn't matter. Look: Kentucky, 67; West Virginia, 71; Tennessee, 68; Alabama, 67; Georgia, 70. A map showing maternal mortality tells the same story.

CHILDREN ON RELIEF

There must be a reason for this frontier of safety. Well, others of these Government charts tell at least

part of the tale. One-half of the 2,200,000 children born in the United States in 1935 were born in families on relief. One-quarter were born in relief families receiving less than \$500.00 a year. Take another look. One-half of our babies are born on relief! What does that mean to the future of America? What does it mean to the maternal and infant mortality statistics?

In twenty-five states having only 28 per cent of the national income, approximately one-half of the children were born. The other half were born in states having 72 per cent of the national income.

What are the twenty-five states with only 28 per cent of the national income? They form a solid phalanx south of the Ohio and the Missouri with the exception of Idaho, Utah, Vermont, and Oregon.

SICKNESS AND THE UNEMPLOYED

Poverty, thus, plays an important role in the safety of mothers and babies at childbirth. The United States Public Health Service recently published a study of sickness among the unemployed. It was found that the sickness rate was double that of the employed, and that 350,000 unemployed breadwinners are too sick to work. "If no action is taken along this line," says George S. J. Perrot, director of the survey, "we are faced

*Maternity Center Association.

with a mounting total of unemployed who will constitute public charges."

This is the very group in which one-half of our country's children are being born today! In these southern states, hookworm, malaria, and syphilis are dangerous menaces to the public health because they are so prevalent among the poorest people. The question is: how can safe maternity be expected in these states if the mothers themselves are sick even before they become pregnant? Additional funds solely to provide better obstetrical care cannot solve this problem. Does a farmer expect to secure a healthy calf from a sick cow? Does he mate a sick stallion with a healthy mare? "Poor breeding," you say? The result: sickly and weak offspring, abortion, death. Doesn't the same principle apply to human beings?

Furthermore, two causes of death at childbirth which have not fallen at all during the past twenty years are hemorrhage and sepsis, according to these recent Government figures. Is it not apropos to point out that if women have low hemoglobin and low bodily resistance before they become pregnant they run greater risks from hemorrhage and sepsis when they have their babies? Can we successfully combat hemorrhage and sepsis until some of these underlying problems are obviated?

A DEAD END

We have reached a dead end in our present day thinking about safe maternity, and we must change our

whole concept. For twenty years the maternity death rate throughout the whole country has shown but the slightest decline despite the fact that we have more hospitals, more prenatal clinics, more obstetricians, more public health nurses; despite the fact that sermons have been preached, news stories and magazine articles have been published, speeches have been broadcast, and doctors and nurses have attended institutes—all about safe motherhood; despite the fact that the teaching of obstetrics in schools of medicine and schools of nursing has improved tremendously.

BROADEN VISTAS

Now, a while back maternity care meant care during labor and the lying-in period. Now the cycle of maternity care begins with the first signs of pregnancy and lasts until the mother is able to assume her full household responsibilities. That is the state of thought today. But because we have limited maternity to so small a segment of life, we still have our needless maternity deaths and injuries. Why do more mothers die below the Ohio and Missouri than north of this frontier? Poor care? Yes, indeed, no care at all for thousands. But also because of our narrow concept of maternity. We have to fight hookworm, malaria, syphilis, malnutrition. We have to work for better housing, for the improvement of general medical and hospital care so that women will be physically fit before a pregnancy is begun.

BUREAU OF VITAL STATISTICS

EDWARD M. L'ENGLE, M. D., *Director*

AUTOMOBILE ACCIDENTS

There are two ways of estimating the death rates from automobile accidents. By one method, the rate represents the number of deaths per 100,000 population. By the other, the rate represents the number of deaths per 100,000,000 vehicle miles. The National Safety Council is the authority for the figures given below where the second method is used. Records of the Bureau of Vital Statistics are used in arriving at the rate by the population method.

The tables below give the total number of deaths in Florida for the year 1937 by counties, by color and by place of accident and place of death; the rate by population and by vehicle miles for the year 1937; the rate by population by color for each year from 1933 to 1937, inclusive; the number of deaths by months. It

will be noted that the death rate has increased by 25% from 1933 to 1937.

Of the total deaths for 1937, 34 were deaths of residents of Florida which occurred in other states; 119 were deaths of residents of other states where the accident and death occurred in Florida; 4 non-residents died in Florida where the accident occurred in other states.

The accompanying maps reproduced from *Accident Facts* published by the National Safety Council show the comparative death rates by population and by vehicle miles of all the states. The State Board of Health is ready to cooperate with other departments of the state government in measures to reduce this unnecessarily high death rate. In 1937, deaths from automobile accidents occupied the seventh place among the ten leading causes of death in this state.

AUTOMOBILE ACCIDENT DEATH RATES BY POPULATION AND VEHICLE MILES, 1937

Rate by Population	42.5
Rate by Vehicle Miles	18.8

DEATHS AND DEATH RATES BY POPULATION FROM AUTOMOBILE ACCIDENTS BY COLOR, FLORIDA, 1933-1937

YEAR	TOTAL		WHITE		COLORED	
	Deaths	Rate	Deaths	Rate	Deaths	Rate
1937	709	42.5	545	45.9	164	34.0
1936	645	39.3	515	44.2	130	27.3
1935	597	37.0	445	38.9	152	32.4
1934	608	38.3	452	40.2	156	33.8
1933	495	31.8	368	33.4	127	27.9

BUREAU OF VITAL STATISTICS

TOTAL DEATHS FROM AUTOMOBILE ACCIDENTS BY MONTHS,
FLORIDA, 1937

MONTHS	DEATHS
January	90
February	64
March	52
April	45
May	55
June	41
July	43
August	60
September	55
October	63
November	62
December	79
TOTAL	709

PLACE OF RESIDENCE OF NON-RESIDENT AUTOMOBILE
ACCIDENT DEATHS, 1937

PLACE OF RESIDENCE	TOTAL	WHITE	COLORED
Alabama	10	10	
California	1	1	
Connecticut	1	1	
District of Columbia	1	1	
Georgia	32	28	4
Illinois	3	3	
Indiana	3	3	
Kentucky	1	1	
Maine	1	1	
Maryland	2	2	
Massachusetts	3	3	
Michigan	6	5	1
Mississippi	2	2	
Missouri	2	2	
New Hampshire	1	1	
New Jersey	5	5	
New York	20	20	
Ohio	10	10	
Oklahoma	1	1	
Pennsylvania	9	9	
Rhode Island	2	2	
South Carolina	1		1
South Dakota	1	1	
Tennessee	2	2	
Washington	1	1	
Wisconsin	1	1	
Canada	1	1	
TOTAL	123	117	6

DEATHS FROM AUTOMOBILE ACCIDENTS AND PLACE OF ACCIDENT,
BY COLOR, BY COUNTIES — FLORIDA, 1937

COUNTIES	PLACE OF DEATH			PLACE OF ACCIDENT		
	Total	White	Colored	Total	White	Colored
State	709	545	164	709	545	164
Alachua	14	8	6	11	6	5
Baker	0	0	0	2	2	0
Bay	16	15	1	14	13	1
Bradford	4	2	2	4	2	2
Brevard	8	4	4	9	5	4
Broward	20	12	8	19	11	8
Calhoun	5	5	0	4	4	0
Charlotte	0	0	0	0	0	0
Citrus	1	1	0	2	2	0
Clay	1	0	1	1	0	1
Collier	6	2	4	7	3	4
Columbia	23	21	2	19	17	2
Dade	111	93	18	112	94	18
DeSoto	1	1	0	2	1	1
Dixie	2	2	0	3	2	1
Duval	73	48	25	66	43	23
Escambia	22	18	4	15	12	3
Flagler	6	6	0	7	7	0
Franklin	0	0	0	2	2	0
Gadsden (Ex.)	7	5	2	9	7	2
State Hospital	9	9	0	0	0	0
Gilchrist	1	0	1	1	0	1
Glades	3	2	1	3	2	1
Gulf	1	0	1	3	2	1
Hamilton	4	3	1	5	4	1
Hardee	2	2	0	4	4	0
Hendry	2	1	1	2	1	1
Hernando	4	3	1	3	2	1
Highlands	2	1	1	1	0	1
Hillsboro	59	55	4	59	56	3
Holmes	3	3	0	3	3	0
Indian River	6	5	1	6	5	1
Jackson	6	4	2	13	11	2
Jefferson	1	1	0	1	1	0

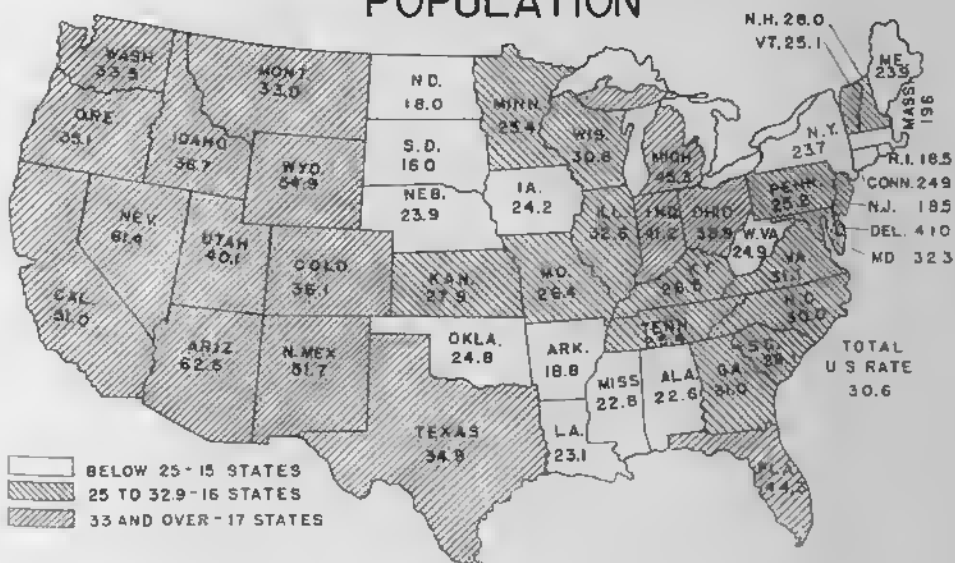
DEATHS FROM AUTOMOBILE ACCIDENTS AND PLACE OF ACCIDENT,
BY COLOR, BY COUNTIES—FLORIDA, 1937—*Continued*

COUNTIES	PLACE OF DEATH			PLACE OF ACCIDENT		
	Total	White	Colored	Total	White	Colored
Lafayette	1	1	0	1	1	0
Lake	14	8	6	14	8	6
Lee	6	5	1	5	4	1
Leon	13	10	3	7	5	2
Levy	3	2	1	4	3	1
Liberty	0	0	0	1	0	1
Madison	4	3	1	5	3	2
Manatee	7	6	1	7	6	1
Marion	18	8	10	16	9	7
Martin	6	5	1	5	4	1
Monroe	2	2	0	2	2	0
Nassau	6	5	1	8	7	1
Okaloosa	3	3	0	4	3	1
Okeechobee	1	1	0	2	2	0
Orange	19	15	4	17	13	4
Osceola	7	7	0	7	7	0
Palm Beach	34	21	13	34	21	13
Pasco	3	3	0	4	3	1
Pinellas	31	28	3	30	27	3
Polk	23	18	5	20	16	4
Putnam	7	2	5	8	3	5
St. Johns	9	6	3	8	5	3
St. Lucie	4	2	2	4	2	2
Santa Rosa	5	3	2	6	4	2
Sarasota	9	7	2	9	7	2
Seminole	5	4	1	5	4	1
Sumter	1	1	0	3	1	2
Suwannee	3	2	1	5	4	1
Taylor	6	6	0	6	6	0
Union	1	1	0	2	2	0
Volusia	29	23	6	30	23	7
Wakulla	2	1	1	6	5	1
Walton	1	1	0	1	1	0
Washington	3	3	0	3	3	0
Other States				8	7	1

MOTOR VEHICLE DEATHS PER 100,000,000 VEHICLE-MILES



MOTOR VEHICLE DEATHS PER 100,000 POPULATION



FIVE MILLION HAVE MALARIA IN ONE YEAR. WITH TOTAL ECONOMIC LOSS OF 100 MILLION DOLLARS YEARLY*

It has been estimated that 5 million persons suffer from malaria yearly, with a total annual loss of nearly 100 million dollars.

Ten thousand deaths was the toll it took in the United States in 1936 alone. This is the estimate of J. A. LePrince, senior health officer of the U. S. Public Health Service. And for every person who died of malaria there were 500 who suffered from it—a total of 5 million cases.

Each case represents an average outlay of \$17.30 for medical care and drugs, bringing the total to almost 100 million dollars. This represents only a part of the actual loss, which includes deductions from earnings and general loss of earning power traceable to the physical and mental enfeeblement of chronic sufferers. Obviously, when an attack is in progress the sufferer is in no condition to do a day's work, and such direct losses should be counted.

The effects of malaria are mental as well as physical, a fact which has not been given the importance it deserves. Children with chronic malaria have been found to be backward at school, and frequently they must be classified as feeble-minded. The anemia that comes from the disease makes concentration difficult.

A parasite which feeds on the red

blood corpuscles, as the one causing malaria does, will cause serious anemia and bring about a state of general ill health and malnutrition. Also, one attack of it does not confer immunity, as happens after an attack of yellow fever or smallpox. Instead, one serious attack of malaria often seems to predispose to another.

Those who have managed to survive for a considerable period of time in a malarious country generally have a certain tolerance for the disease; yet even these are likely to succumb to it in an epidemic. Often while malaria does not appear on the death certificate it is the real cause of the fatal outcome.

There are three main types of malaria, and these correspond with the three main types of plasmodia which have so far been isolated. These are benign tertian, quartan and malignant tertian; the last named is also called subtertian, estivo-autumnal malaria and tropical fever.

In the case of both benign and malignant tertian malaria the attack comes every other day; that is, the cycle takes forty-eight hours to complete. In the malignant tertian type the period is generally somewhat irregular. In quartan the cycle requires seventy-two hours; hence the attacks come every three days.

NEWS NOTES

Duval County now has a full-time county health department. K. K. Waering, M. D., formerly Director of the Gadsden County Health Department, is Director, Mrs. Vivian Ross, R. N., is Nursing Supervisor, and her staff includes Miss Isabel Ordiorne, Mrs. Nan Webster, Miss Mabel Binder and Miss Rebah Lockhart. There are

two negro nurses, Willie Mae Weems and Willie Mae Thompson. Mrs. Lydia Bellinger will be secretary to Dr. Waering.

A list of moving picture films on health subjects which are available for distribution from the Bureau of Health Education of the Florida

*Hygeia, July, 1938.

State Board of Health was recently mailed to all county health departments. The films have been in constant circulation and it is the intention of the Bureau to obtain more films as soon as they are produced. There is a dearth of good films of this type. The U. S. Public Health Service has recently produced a film entitled "Three Counties Against Syphilis." This picture was first shown at the recent meeting of the American Public Health Association in Kansas City, and will soon be available for distribution. Public

health workers will be notified of new films as they appear.

* * *

A new bulletin "The School—A Model of Sanitation" is available from the State Board of Health. This bulletin was prepared in the office of the Bureau of Engineering and is an excellent handbook for teachers, principals of schools and public health workers dealing with problems of school sanitation. Copies are available in quantity from the State Board of Health.

NEW BOOKS IN THE LIBRARY OF THE FLORIDA STATE BOARD OF HEALTH

Bluemel, C. S., *Troubled Mind*. A study of nervous and mental illnesses. Balt., Williams & Wilkins, 1938.

Conrad, Howard L., and Meister, Joseph F., *Teaching Procedures in Health Education*. Phil., W. B. Saunders, 1938.

One of the finest expressions to date of this complex subject.

Forkner, Claude E., *Leukemia and Allied Disorders*. N. Y., Macmillan Co., 1938.

The need for a comprehensive monograph on leukemia has long existed. In this work the author has simplified and consolidated the various views of the subject and has presented a critical interpretation of the known facts in relation to what is unknown.

Jensen, Hans F., *Insulin: Its chemistry and physiology*. N. Y., Commonwealth Fund, 1938.

A comprehensive review of the latest developments in the chemical and physiological investigation of insulin.

Julianette, Louis A., *Etiology of Trachoma*. N. Y., Commonwealth Fund, 1938.

Since the publication of Axenfeld's monograph in 1914, has there been in no instance more than a chapter devoted to the etiology of trachoma, and then in a more or less cursory manner. Several years of study of the subject at Washington University provided the author with the opportunity for a critical and analytical review of the concepts of the etiology of trachoma that have been promulgated in this new book.

Long, W. Bayard, and Goldberg, Jacob A., *Handbook on Social Hygiene*. Phila., Lea & Febiger, 1938.

The current interest in the control and treatment of venereal diseases and the various collateral problems which are involved, justifies the publication of this handbook. It will assist in informing and directing those workers, both medical men and laymen who have enlisted in this important campaign.

Ryan, W. Carson, *Mental Health Through Education*. N. Y., Commonwealth Fund, 1938.

The author seeks to answer the question: How does educational practice today, at every level and for every type of education, square with what is known of mental hygiene, and what further advances can be made?

Salzmann, J. A., *Principles and Practice of Public Health Dentistry*. Boston, Stratford, c1937.

"Dentistry has come of age. It has reached the crossroads in its long journey of scientific and professional progress. It must now become the leader in a field particularly its own, use its resources and initiative, play its true role as a guardian of the public health. Dr. Salzmann points the way."—*Dental Survey*.

Sommer, Hugo H., *Market Milk and Related Products*. Madison, Wis., the author, 1938.

An excellent book and unique in its field. Recommended for all interested in dairy problems.

WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



BUREAUS AND DIVISIONS AT JACKSONVILLE

Directors

Accounting	G. Wilson Baltzell
Dental Health	Lloyd N. Herlow, D.D.S.
District and County Health Work	A. B. McCroery, M.D.
Drug Inspection	M. H. Doss
Engineering	G. F. Cellott, C.E.
Epidemiology	Dan N. Cone, M.D.
Health Education	Elizabeth Behneberger
Laboratories	J. N. Patterson, M.D.
Maternal and Child Health	F. V. Chappell, M.D.
Public Health Nursing	Ruth E. Mattinger, R.N.
Tuberculosis	A. J. Legle, M.D.
Veneral Disease Control	L. C. Gonzalez, M.D. (Asst.)
Vital Statistics	Edward M. L'Engle, M.D.

DIRECTORS FULL TIME COUNTY HEALTH UNITS

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Alford County	L. J. Graves, M.D.
Alford County	A. L. Stobbs, M.D.
Baker County	R. N. Joyner, M.D.
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Glades County	W. P. Rice, M.D.
Hardee County	Terry Bird, M.D.
Hendry County	K. K. Weirag, M.D.

MEDICAL OFFICERS

Dist. 1. Marianna	C. W. McDonald, M.D.
Dist. 2. Jacksonville	Jack Galin, M.D.
Dist. 3. Ocala	D. C. Will, M.D.
Dist. 4. Bertow	C. W. Pears, M.D.
Dist. 5. West Palm Beach	Leland H. Demo, M.D.

MALARIA RESEARCH

Mark F. Boyd, M.D., Tallahassee	Rockefeller Foundation
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ENTOMOLOGY

W. V. King, Ph.D., Orlando	U. S. Bureau Entomology
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FLORIDA

HEALTH NOTES

TUBERCULOSIS

Status of Tuberculosis in Florida

Sanatorium and Tuberculosis

United Attack Against Tuberculosis

Place of the Voluntary Health Agency in the
State-Wide Tuberculosis Program

Post-Sanatorium Care

Deaths from Tuberculosis, by Color, by
Counties, Florida, 1937

COUNTY TUBERCULOSIS SANATORIUMS

That Florida now has a state tuberculosis sanatorium is a source of much satisfaction to all interested in the long fight against this disease. But, now that we have a state sanatorium must we not keep in mind that we still need county sanatoriums in every large county in Florida? The state sanatorium cannot be expected to carry the entire load.

With an estimated 10,000 active cases of tuberculosis in Florida, the state sanatorium with but 400 beds could not possibly accommodate all the patients who should have institutional care.

Escambia County has such a county sanatorium. This institution has a 44-bed capacity, 24 for white patients and 20 for colored. The hospital is fully equipped, expertly staffed and serves Escambia County with admirable results.

Let us be proud of our state sanatorium and let us set a new goal—a county sanatorium in every large Florida county, adequately equipped, adequately financed, and under the supervision of a physician trained in tuberculosis technics. Tuberculosis is not conquered yet. The path is clear—the eventual saving in both money and in human suffering well worth whatever the cost of the fight may be.

W. A. McPhaul, M. D.,
State Health Officer.

FLORIDA HEALTH NOTES

Official Monthly Publication of the

STATE BOARD OF HEALTH

JACKSONVILLE, FLORIDA

Est. 1890

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THE STATUS OF TUBERCULOSIS IN FLORIDA

A. J. LOGIE, M. D., *Director*
Division of Tuberculosis

In the United States tuberculosis holds seventh place as the chief cause of death, whereas, in Florida it is the sixth major cause. In this state the tuberculosis mortality rate for 1937 was 57.8 per one hundred thousand as compared to 55.1 for the previous year. For the last ten years the rate has been falling continuously, until the slight rise in 1937 over that of 1936. This increase was anticipated. It is a relative rather than an actual increase. The number of cases dying from tuberculosis has not increased; the higher death rate is due chiefly to more accurate diagnosis. In the latter part of 1936 the state antituberculosis program was inaugurated, and in the latter part of 1937 the state tuberculosis sanatorium was opened. Diagnostic facilities were made available to local physicians within the past two years, so that a number of cases formerly diagnosed as dead from asthma, bronchitis and other chest diseases have been properly certified as dead from tuberculosis. The fact that we can now offer more than isolation alone to the tuberculous is encouraging a number of cases to reveal themselves. Families formerly concerned with the stigma of a diagnosis of tuberculosis are less recalcitrant in seeking medical advice and attention.

It is likely that the mortality rate from tuberculosis will continue to show a slight increase for a year or so; and then, a gradual reduction should follow.

The negro death rate is still three and one-half times the white, in spite of improved economic conditions. The higher rate among negroes is not due to a more frequent infection among them, but to the fact that once infected they are less resistant to progressive disease. In spite of the fact that the rate for the negro is so much greater than the white, infection in the negro as compared to the white occurs in a ratio of 1.4 to 1, as shown by a recent survey.

Of the 966 deaths from tuberculosis last year, more than fifty percent were individuals between twenty and forty-five years of age—the most productive years of life—the wage earning period. In 1937, 1,155 new cases were reported, giving a ratio of 1.2 new cases reported to each death. This ratio is approaching the American Public Health Association's standard of 2 to 1, and is doubtlessly a result of the educational effect of the state antituberculosis program and the state sanatorium upon the public, and is due in part to physicians becoming more tuberculosis-minded to the extent of diagnosing

cases earlier and of reporting more conscientiously their cases to the health department.

Less is being heard of tuberculosis control, but more is heard of the eradication of the disease. However, before tuberculosis can be eradicated it must be brought under effective control. The open case of the disease must be found, isolated and treated until his condition is no longer a menace to the health of the public. His contacts must be examined by the tuberculin test and the x-ray, or by the x-ray alone, to discover the disease at an early stage, before the potential case has become infectious. When the characteristic symptoms of tuberculosis appear, the disease is already in an advanced stage. The x-ray will reveal the condition in the lungs two or three years before these symptoms arise. The longer the disease has been present, the smaller is the chance for cure and the greater is the opportunity for spreading the germs to others. Effective control of tuberculosis can be assured if cases are diagnosed while the disease is at an early stage.

Of all cases reported to health departments, eighty percent have an advanced stage of the disease at the time of diagnosis. An equal percentage of all admissions to sanatoriums are advanced cases. The need for early diagnosis is obvious, but modern diagnostic facilities are required for this purpose. Each county in this state should have an official health department with a trained personnel. Each health department should sponsor a weekly clinic in which indigent cases of tuberculosis can be diagnosed and treated if necessary. The clinic should possess modern equipment for diagnosis and treatment, and be staffed with physicians fully acquainted with tuberculosis. The physicians should be paid for their services. All this costs money, but the clinic would save the county thousands of dollars which would have to be spent in confining patients in the sanatorium for a prolonged period, and in caring for the patient's contacts and dependents.

The patient discharged from the sanatorium is, in most cases, no longer a menace to the health of the community, so long as his condition is permitted to stay on the road to complete recovery. His lesion is quiescent, or, apparently arrested, and must be kept so after his discharge from the institution. Complete cure of his condition usually takes several years. He cannot be kept institutionalized until then, as the sanatorium with a limited bed capacity of 400 beds must have a rapid turn-over of patients in order to give an equal chance of sanatorium treatment to the five thousand clinical cases in the state. The patient will most likely be hospitalized until his condition has been controlled by treatment and until he is no longer infectious. Then he will be returned to his community for continuation of the treatment.

Most discharged cases cannot be expected to become family providers for many years. Less than thirty percent may return to their former occupations. Rehabilitation is essential, so that the patient may be trained to do some type of work which will not produce excessive physical or mental strain. It is known that no more than fifty percent of discharged patients are able to return to work regardless of treatment. About thirty to forty percent of patients discharged from institutions have a relapse; the lesions become reactivated usually within the first six years after discharge. In the great majority of cases the recurrence of the disease is due to a return to their former occupations too rapidly, or to treatment not being continued long enough. Herein lies a community responsibility—rehabilitation of the patient and financial support of his dependents. Some financial arrangement through local social welfare agencies must be made to care for these discharged cases and their families so that they can regain their full quota of health and strength before returning to industry. If this is not done, relapse will necessitate repeated hospitalization with additional cost to the county and the state. A recurrence of the

disease converts the patient into a menace to the health of the public for the second time.

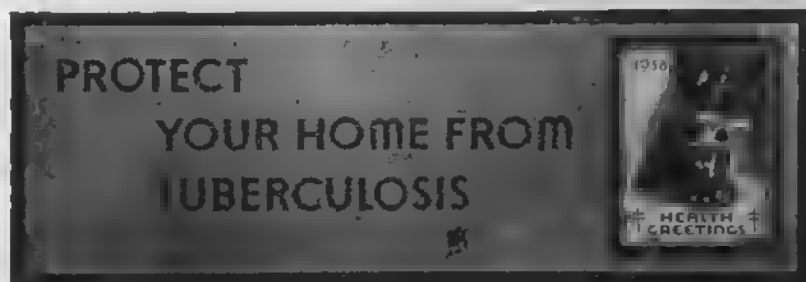
Tuberculosis is curable, especially if the condition is diagnosed early. The Division of Tuberculosis of the State Board of Health has inaugurated a case-finding program throughout the state. Approximately 13,000 individuals have been tuberculin tested. About 4,000 chests have been x-rayed. Many cases of early tuberculosis have been found in apparently healthy individuals who did not even suspect that they had anything wrong. Of all cases discovered, seventy-nine percent were in an early, curable stage. The incidence of clinical tuberculosis in individuals who gave a history of contact was twenty times greater than those who had not reported any exposure to a known case. Reports of the results of the program have been forwarded to the family physicians of the individuals investigated. The family physician has been the keynote of the program. Physicians are having social leadership thrust upon them. The family physician is much closer to the individual than the physician engaged in public health work; he is not only the medical advisor but also the personal friend. He treats the human being, as well as the disease. It is through our initiative, his understanding of human nature and its ailments, and the combined practice of preventive and curative medicine that the objectives of the antituberculosis program are being attained.

The program has proved an excellent means of health education. It is estimated that only twenty percent of the population are health-minded.

Enlightenment of the public as regards tuberculosis is no easy task—even experts in the field are not agreed upon certain aspects. We are attempting to cultivate tuberculosis-mindedness and to avoid tuberculosis-phobia. There are many popular health misconceptions which must be corrected. One of the principal misconceptions regarding tuberculosis is that in this state, because of its excellent climate, tuberculosis cannot be a major problem. The climate alone will not prevent or cure tuberculosis. Once the germ invades the body with low resistance, it is too pre-occupied to consider the climate, or weather.

There are two groups of the population that should be given greater consideration in the control of the disease. They are school teachers and food handlers. Although they acquire health certificates prior to employment, it is a rarity to find a certificate that reports an x-ray of the chest. No other communicable disease equals tuberculosis in the taking of human lives, and although no other examination will reveal early tuberculosis, nothing has been done to include an x-ray of the chest in the ordinary health examination of individuals who are in a position to spread the disease wholesale.

Preventive medicine cannot make much headway in the face of unfavorable social conditions. Tuberculosis is far more frequent where unfavorable social or economic conditions exist. If tuberculosis is to be eradicated or effectively controlled, society must do more to tip the scales in favor of the patient rather than in favor of the germ of tuberculosis.



THE SANATORIUM AND TUBERCULOSIS

R. D. THOMPSON, M.D., *Superintendent and Medical Director*
State Tuberculosis Sanatorium

Many, many rest hours ago, many many coughs ago and many, many spulum examinations ago, we, who are doing tuberculosis work realized that the work of the sanatorium does not begin at the door of the institution, nor does it end there. The work of the sanatorium reaches far out into all classes and into all areas which that institution serves.

The sanatorium cannot exist and do all the good work that is expected of it, and that it is capable of doing, without the assistance of social workers, public health workers, nursing services and the medical profession. All of these services and workers must have a very definite idea as to what the sanatorium is and what can be accomplished in a modern sanatorium today. The social worker must have a very definite idea and a very definite knowledge of what tuberculosis is and of how to advise patients who have been referred. The public health nurse must be trained. No nurse can come directly as a graduate from her training school and do successful public health work in tuberculosis, or any other contagious disease, without first having had training in public health. The public health worker must be trained in case finding; she must know what it is to approach a contact in tuberculosis where she has a knowledge of the existence of an open case in a home. She must know how to sell her wares, particularly when it comes to the tuberculin test. The public health nurse who tells a mother that her child has a bad case of tuberculosis because that child shows a positive tuberculin reaction simply has not received the proper training. She is entirely ignorant of the facts regarding the value and interpretation of the test. That worker should not be permitted to do public health work until she has received adequate training.

All health agencies, state, county and city, must play their role in case finding, and in recommending patients suitable for admission to the sanatorium. Also the public health worker and the general practitioner of medicine must realize that there are certain cases which should not be sent to the institution. These are the hopeless cases which have been ill for many months and which present to the physician and to the nurse a case of far advanced, incurable tuberculosis manifested by a cough, expectoration, emaciation, hemoptysis, and the other cardinal symptoms of an advanced disease. These far advanced cases in a sanatorium only occupy expensive beds. They have waited too long for admission; nothing can be done for them. They can only be given the care and comfort which, of course, they justly deserve. There is often too much sentiment shown by the laity concerning the admission of this type of patient. They feel that a far advanced case is sick and needs nursing care and should be admitted to the sanatorium. Their cry is usually this: If the patient remains at home he is going to infect his family and they do not stop to consider that during the many weeks that this patient has been in bed, or about the home, he has already infected his family. The damage has already been done. With intelligent instruction by the doctor and the public health nurse the rudiments of hygiene and prevention can be taught this patient and the members of his household so that he may avoid spreading his disease. The patient should cover his mouth when he coughs. The spulum should be burned and individual dishes used. Whenever possible the patient should be confined to a separate room, and nursed by one adult only.

The sanatorium today offers the most modern treatment for tuberculosis. We must realize that there is

no short cut in the cure of this disease. Patent medicine, electric baths, exposure to sunshine, treatments by medical quacks, etc., have never established a cure. The state sanatorium was established in Florida because the authorities and public spirited citizens realized that the greatest amount of good can be done for the tuberculosis patient through hospitalization in such an institution. It is extremely difficult to turn a home into a sanatorium and be successful. The home can be a successful hospital for illnesses of short duration but it must be remembered that it takes weeks and months to cure tuberculosis as there is no specific drug for cure of this disease such as quinine for malaria and antitoxin for diphtheria. The modern sanatorium teaches the patient how to rest, how to relax; and absolute rest is the one treatment that must be administered twenty-four hours a day if a cure is to be assured. It is much easier to take the cure in an institution where everybody else is doing the same thing than at home where the sick patient is surrounded by healthy relatives. The sanatorium not only offers supervision and proper bed rest but also offers the proper nutrition and no patient can get well without proper food.

The sanatorium also furnishes modern means of rest with reference to the sick lungs. By this we mean certain procedures that will collapse the sick lung and put it at rest and if we are going to put the sick lung at rest, it is absolutely necessary that we put the entire body at rest. There are certain procedures that will collapse the lung. The principal procedure for collapsing the lung is pneumothorax, or an injection of air between the lung and the chest wall. Other procedures are: paralysis of the diaphragm on the affected side so as to stop the respiration, or up and down motion of the diaphragm. Also in cases where there are adhesions holding a cavity open, these adhesions can be removed and the lung be made to collapse. Further, in cases of long standing

where it is impossible to collapse the lung with air, we can now, very successfully, remove certain portions of the rib on one side and permit the lung to collapse. This is being done every day at the state sanatorium with a very definite amount of success. Along with this treatment the patient is given certain degrees of exercise—exercise that fits the physical capacity of the patient. For a patient to get up out of bed and walk two or three hours is one of the most absurd prescriptions in the treatment of tuberculosis that ever existed. The first exercise in the sanatorium is allowing the patient to go to the bath room once a day, then twice, then three times; then permit the patient to dress and remain dressed for only one hour and gradually the patient's physical condition is built up—he makes a recovery from his disease and can leave the sanatorium in a period of months, or even perhaps years, a well man or woman.

The work of the sanatorium does not end at the door. We must follow these cures and arrested cases for many months after they leave the institution because we know that tuberculosis is prone to relapse and unless a patient is examined carefully and has an x-ray of the chest at frequent intervals, a breakdown is likely to occur, and after the state has invested in many days of hospitalization for a man or woman, it is desirable of keeping that patient well. Along with this there are many patients whose former occupations required a great deal of physical activity and long hours, many times a hindrance to their health. These individuals must receive some form of rehabilitation so that they may work but still remain within the bounds of their physical capacity. The modern sanatorium must establish an occupational therapy department where these patients can learn some useful occupation so that upon their return home they will not have that awful fear of breaking down into tuberculosis again. This part of the program then goes back again to the help and intelligence of the public health

worker and the family physician so that the patient may be closely supervised and guided for many months. We must remember to make the sanatorium the first resort in tuberculosis and not the last resort and

it will only be through the intelligent work in case finding, examination of contacts of patients and getting these early cases into the institution that the sanatorium can do its greatest amount of good.

THE UNITED ATTACK AGAINST TUBERCULOSIS

ARNOLD S. ANDERSON, M.D.,

St. Petersburg, Florida

If the history of tuberculosis has taught us anything it has taught us that progress in the control of this disease has been greatest where unity of effort has been greatest. The very nature of tuberculosis with its economic, social and medical aspects has demanded that many and varied workers are needed for its control. It requires men and women with different types of training but all having the same common objective—the annihilation of a relentless enemy—tuberculosis.

One of the outstanding events in the history of tuberculosis control was the founding of the National Tuberculosis Association some 50 years ago. This association composed of a variety of talented lay people, social service workers and physicians brought the public face to face with the tuberculosis problem and exposed its menacing presence to the thinking public. Without the painstaking and elaborate efforts of the National Tuberculosis Association in making the public self-conscious about this disease we would be far behind in our steady climb toward its ultimate control. And just as this association has with its varied groups maintained a united front so it has also reflected to other related agencies the need for correlation of activities so that efforts against tuberculosis would be more powerful and more intensified.

In our own state we have three agencies directly concerned with the control of the disease. They are The State Board of Health, The State and County Sanatoria and the Florida Tuberculosis and Health Association. The future of the tuberculosis prob-

lem in this state is dependent upon the teamwork of these groups. Each has a place and is a potential power vitally needed in this important work.

The State Board of Health with its set-up for dealing with all infectious diseases, its police authority, its Tuberculosis Division and its seventeen county health units is of paramount importance in dealing with the public health aspect of this disease. When we remember that each active tuberculous patient during his period as a carrier, infects on the average at least six other people, then we realize how important is the public health aspect of this contagious disease and how badly we need such authority for dealing with it as can only come from the State Board of Health.

The addition of a 400 bed state tuberculosis sanatorium to the sanatorium facilities of our state has helped greatly in dealing with the tuberculosis problem. As a nucleus for treatment this institution has already shown splendid progress. Since opening its doors last January over 500 patients have been treated and many carriers of the disease have been made sputum negative. Although the start made toward the proper care of the tuberculous in our state is admirable, still there are many more beds needed until minimum requirements are met. With over 900 deaths from tuberculosis each year there is needed at least 1,000 modern beds through the state for effective anti-tuberculosis work.

Any growing concern needs a good sales department. Without it the wares rot and the machinery rusts.

It is so with a public health program. Unless the people are made to believe in it no amount of good scientific work can bear fruit. The purpose of the Florida Tuberculosis and Health Association is to sell health to a community; to make known to both layman and physician the latest developments in anti-tuberculosis work so that they may know the right road to take. Where for instance would we be with our tuberculin testing surveys without the preliminary educational work of this association. Where would be that number of high school boys and girls that were found through these surveys to have tuberculosis? They would soon be far-advanced, hopeless consumptives.

Where would be the positive sputum cases—the spreaders of disease picked up in these surveys? They would still be disseminating tuberculosis unsuspectingly to infants and young children. It is only when we come face to face with actual cases such as these that we realize how important it is to be fore-warned and fore-armed—it is then we realize how important is the work of the enlightenment corps.

Tuberculosis still takes a toll of 70,000 lives annually in the United States. The annual cost of tuberculosis is estimated at \$500,000,000. From the standpoint of both life and

money this is a tremendous price to pay for the workings of a small organism called the tubercle bacillus. It is a fact however that the more money spent toward effective, preventive work the fewer will be the lives lost from this disease, and as the death rate is lowered so will be decreased the number of spreaders of the disease and so also will result a subsequent decrease in the amount of money expended in caring for this problem. It resolves itself into an effective anti-tuberculosis problem which recognizes that money spent properly to save lives is money saved in the future.

Just as no individual is sufficient unto himself so no organization is sufficient unto itself. In order to progress there must be that mutual cooperation and sincere driving toward a common goal regardless of minor incompatibilities. The best results are obtained when the broadest viewpoints reign and where the ultimate goal is looked for rather than the credit. With these thoughts in mind there seems no just reason why the combined cooperative efforts of these three anti-tuberculosis agencies should not give to the State of Florida fewer deaths and fewer cripples from that devastating economic disease—tuberculosis.

THE PLACE OF THE VOLUNTARY HEALTH AGENCY IN THE STATE-WIDE TUBERCULOSIS PROGRAM

MAY PYNCHON, *Executive Secretary*
Florida Tuberculosis and Health Association

Rule One for the voluntary agency since the beginning of time, has been to supplement the programs of official agencies. This rule is as applicable today as it was when the first unofficial agency was organized.

In many states the State Board of Health, State Board of Education, and State Board of Social Welfare are the three main official agencies. Upon the shoulders of the official health agency rests the responsibility for the planning and execution of a tuber-

culosis control program. To supplement and make this program more effective is the duty and function of the unofficial agency.

Health education is a primary function of the unofficial agency in a state-wide tuberculosis program. Under this heading comes the organization of a Speaker's Bureau. The Bureau should be composed of private physicians doing tuberculosis work; county health officers; public health nurses interested in tubercu-

losis; educators trained in health education, and lay persons interested in and trained for tuberculosis work. Speakers equipped to speak in the language of the group should be drawn from this bureau.

To maintain an Exhibit Service is a duty of an unofficial health agency. There should be technical exhibits for showing before a medical society or a nursing group; other types of exhibits suitable for the teaching profession and still other exhibits prepared for showing before lay organizations and for high school and college classes. For the window display or county fair, exhibits designed so those who run may read should be planned. Exhibits using Negro figures or dealing with Negro problems are more effective for display before Negro groups than those planned for general use. The voluntary agency, particularly in the south, should not overlook this opportunity of reaching a group so badly needing enlightenment on tuberculosis problems.

A library of films to supplement that of the official agency should be maintained by the unofficial agency. It should include technical and non-technical films designed to interest men, women and children, white and colored, in the problem of tuberculosis.

While the unofficial agency may and often does maintain package and lending libraries, it is usually more effective where a library is maintained in the State Board of Health or the State Board of Education, to refer requests for material to these departments. An information service, however, should be maintained by the voluntary agency, and consultation service should be supplied through technical committees to physicians, nurses, teachers, social workers and others requesting it.

Legislation is very definitely the duty and function of the voluntary health agency. It is usually impossible for official agencies to aggressively support legislation affecting their departments, finances and programs, without being accused of political in-

terference. The voluntary agency, independent of political pressure, can and should support desirable public health measures.

It is ineffective, if not impossible, for either official or non-official agencies to function without cooperation of the medical association. To seek and maintain a cooperative agreement with physicians in a state-wide tuberculosis program is obligatory. If no tuberculosis committee is maintained in the state medical association, one should be requested. To this committee, composed of physicians interested and experienced in tuberculosis work, the voluntary agency should submit all program plans, films, exhibits, and material for distribution. No voluntary organization should attempt to maintain any tuberculosis program without the approval and cooperation of the medical profession.

Demonstrations are definitely a function of the voluntary agency. Clinics, nursing service, the maintenance of technical personnel, even maintenance of institutions may all be ethically financed by an unofficial agency but only on a temporary basis. As soon as their value has been established, they should be turned over for sponsorship to an official agency.

The training of workers is important in a state-wide tuberculosis program. Tuberculosis associations may, and have, financed training courses for white and colored physicians, nurses, teachers and lay workers either through special institutes within the state or through the use of Christmas Seal funds to finance special courses at tuberculosis training centers elsewhere.

Coordination of the efforts of various lay organizations should be handled through the voluntary health agency. In order to direct into the most effective channels their enthusiasm and desire for service, lay committees should be given supervision. Often it is not possible for an official agency to supply this direction.

Publicity of all sorts, newspaper, radio, posters, pamphlets, should all

be a part of the health education program of the unofficial agency as a supplement to the program of the official agency. It should cooperate with state tuberculosis sanatoria, State Board of Social Welfare in the investigation of tuberculosis cases, the program of the State Board of Education, without which no state-wide tuberculosis program would be complete.

On the extent of the program of the official agency depends the pro-

gram of the voluntary organization. However, the effectiveness of any state-wide tuberculosis program depends on the whole-hearted cooperation of all agencies in the field. Personalities, finances, training and background of workers and many other factors have a bearing on the cooperation and ultimately on the program. The success of one agency cannot be complete without the success of all.

POST-SANATORIUM CARE

CLARA McLAUGHLIN, R.N.,
State Tuberculosis Nurse

Beginning in 1939 the activities of the nurse in the Division of Tuberculosis will be expanded. Heretofore it has been necessary for her to confine most of her time to educational work in the schools, as a preparatory measure for tuberculin testing and x-raying. However, with the establishment of the state tuberculosis sanatorium another great responsibility evolves upon her and that is, the handling of the post-sanatorium patient.

The sanatorium is an institution not only for the treatment of tuberculosis, but is also a place in which a suitable manner of living for each patient is worked out, so that upon his return to his home he may understand how to care for himself and protect the members of his household until he is completely recovered from his condition.

We are aware of the fact that regardless of teaching and advice, and repeated visits, that a call made unawares frequently reveals evidence of carelessness and a total disregard of instructions. The effectiveness of the training in the sanatorium depends upon how well the practice is continued in the home.

It is essential that the patient be visited within a month after his discharge in order to ascertain whether or not he is complying with the rules and regulations applicable to a tuberculous case, and to assist in the many adjustments necessary in his manner of living. For instance: to see that a

separate bed and room for the patient has been provided; to check on the general routine of the household; and to see that the other members of the family, as contacts, are kept under medical observation.

Also, for some time after a person returns to the home, care must be taken to avoid over-exertion and fatigue. The keeping of late hours, and too much social activity must be eliminated, as excessive demands upon the strength of the individual might result in a complete breakdown of a healing lesion. New interests must be invented so that time does not weigh too heavily as complete idleness with no interest would be conducive to despondency and probably introspection. Entertainment, which requires little or no energy, but at the same time serves as a diversion is the objective.

These considerations must be impressed upon the family as they are often prone to forget the seriousness of the disease because of the improved condition and because the patient has been allowed to leave the sanatorium.

Of course, the nurse should not wait until the patient has been discharged before beginning post-hospital care. The best teaching and ideal work is that which has succeeded in making the necessary adjustments in the home before the patient arrives. However, due in many cases to limited personnel fol-

lowing strained economic conditions, this ideal is rarely attained. Close supervision is necessary to safeguard the benefits derived from sanatorium confinement.

If the patient is incurable, rehabilitation must be found for the other members of the family as well. If an arrested case, thought and consideration must be given in selecting an occupation suitable to his condition, for if we have nothing to hold out to the individual other than recovery, then we have done little, as life at best is a problem. With no incentive other than living, the patient's disease may become reactivated, as worry is one of the greatest handicaps in the cure of tuberculosis.

Very often the occupation of the individual prior to the development of the disease is more or less responsible for its appearance, being probably too confining, or too strenuous, and therefore causing a breaking-down of the system and the growth of the germs already contracted through contact with someone having the active disease.

The relation of the tuberculous patient to his community is to be considered also. The community should feel as great a responsibility toward helping him stay well as it did in getting him into the sanatorium. The nurse should advise her local committees as to the best means of using their funds for the benefit of the patient and family, if it be necessary. The patient and his dependents should be assisted financially, until he is physically able to resume the position of family provider to some degree.

To accomplish all this and guide the patient and his family until such time as they are able to take care of themselves, the nurse must work diligently and have a professional, workable, and social knowledge of tuberculosis.

In every instance immediately after the admission of a patient to a sanatorium, a thorough physical and mental examination is made. Also a test for manual dexterity and an investigation of his educational ad-

vantages, so that it will be less difficult to obtain work for him later on. Therefore, it becomes one of the principal duties of the nurse to assist in carrying on until definite suitable work is obtained.

Plans are being made to inaugurate, as soon as possible, a school of occupational therapy in the sanatorium. When this is accomplished conditions will be greatly simplified.

A report from Dr. Thompson, superintendent of the state sanatorium, dated October 1938 showed one hundred and twelve (112) cases discharged since the opening of the institution January 1938. So one can readily see that much time will be required in order to effect a thorough piece of work.

Would that it were possible to take strenuous steps in our country for the eradication of tuberculosis, as did Miss Alice Carr of Yellow Springs, Ohio, who practiced in Athens, Greece, in 1936. The following is an excerpt from the Readers Digest, November 1938:

"Once when Miss Carr was fighting tuberculosis in Athens, the police were unable to make food sellers observe the sanitary regulations. Miss Carr had been teaching several thousand refugee women about tuberculosis. Now she incited the women to revolt. She had huge pictures made, showing how shops must be kept clean, food kept under screens and glass. When the women discovered a dirty shop they would gang up on it, wave their fists, and shout that the slovenly food seller was murdering their children. The shops were soon cleaned up.

Time and again she had seen her beginning taken up and carried on by the people themselves; seen filthy plague spots turned into tidy, healthy communities. She went into Mosul, where the Assyrian babies were dying at the rate of 722 per 1000 born. Within a year and a half she had reduced the death rate to 150 per 1000—about normal in Oriental countries—and organized her work so that it was perpetuated under a local committee."

BUREAU OF VITAL STATISTICS

EDWARD M. L'ENGLE, M.D., *Director*

PROMPT REPORTS REQUESTED

The supreme importance of filing a birth or a death certificate is seldom realized at the time it becomes a record. However, when the question of citizenship arises, when proof is demanded of heirs claiming estates, veterans' compensations, life insurance; when statements are made regarding health conditions in the State, the value of these important records is realized with appreciation.

The value of a birth or death certificate cannot be overestimated and the records on file with the State Board of Health, which have been compiled so carefully during the past years, are being used every day to help someone. The records which are being filed for 1938 will be of increasing value as the years go by. Many citizens have been put to considerable inconvenience and often to great expense because a birth or death cer-

tificate was not filed at the time of occurrence.

Each local registrar is urged to make a survey of his district at once in order that no 1938 birth or death record may be overlooked. Let's make the calendar year 1938 the most perfect as far as completeness of registration is concerned. If perfect registration for the State as a whole is to be reached, each local registrar must have a perfect record in his district.

It is hoped that every local registrar in the State will forward his December report on the 10th day of January and will include in that report a certificate for every unreported birth and death which has occurred in his district during 1938. The cooperation of the Florida local registrars in the past inspires the fixing of such a high standard of perfection as our goal for 1938.

DEATHS FROM TUBERCULOSIS (ALL FORMS) AND RATES PER 100,000 POPULATION, BY COLOR 1917 TO 1937, INCLUSIVE, FLORIDA

YEARS	TOTAL		WHITE		COLORED	
	Deaths	Rates	Deaths	Rates	Deaths	Rates
1937	966	57.8	400	33.7	566	117.2
1936	905	55.1	387	33.2	518	108.8
1935	903	55.9	397	34.7	506	107.9
1934	953	60.1	381	33.9	572	123.0
1933	1,039	66.9	398	36.1	641	142.1
1932	1,093	71.5	395	36.5	698	156.2
1931	1,067	70.8	427	40.1	640	144.8
1930	1,015	68.6	432	41.3	583	134.0
1929	1,014	70.8	416	41.3	598	140.6
1928	1,102	79.7	481	49.7	621	149.5
1927	1,097	82.2	463	49.8	634	156.4
1926	1,187	92.3	519	58.3	668	169.0
1925	999	80.8	426	50.0	573	148.7
1924	1,054	88.7	457	56.2	597	159.1
1923	1,079	94.7	490	63.3	589	161.2
1922	1,019	93.5	440	59.9	579	163.0
1921	951	91.3	401	57.6	550	159.3
1920	1,016	102.3	423	64.3	593	176.8
1919	993	103.7	461	73.4	532	161.6
1918	1,084	115.9	494	81.2	590	180.4
1917	1,085	118.9	472	80.3	613	188.7

BUREAU OF VITAL STATISTICS

DEATHS FROM TUBERCULOSIS (ALL FORMS) AND RATES PER 100,000
POPULATION, BY COLOR AND BY COUNTIES, FLORIDA, 1937

COUNTIES	TOTAL		WHITE		COLORED	
	Deaths	Rates	Deaths	Rates	Deaths	Rates
State	966	57.8	400	33.7	566	117.2
Alachua	20	53.9	4	19.6	16	95.8
Baker	0	....	0	....	0	....
Bay	2	10.6	0	....	2	60.6
Bradford	5	56.9	1	15.6	4	167.9
Brevard	5	33.3	1	9.8	4	83.3
Broward	9	37.2	6	37.5	3	36.6
Calhoun	1	11.4	0	....	1	58.8
Charlotte	1	26.5	0	....	1	135.3
Citrus	10	178.6	3	76.9	7	411.8
Clay	2	27.8	2	38.5	0	....
Collier	1	17.9	0	....	1	40.0
Columbia	15	96.2	8	84.2	7	114.8
Dade	161	81.7	67	42.3	94	243.5
DeSoto	14	168.7	5	73.5	9	600.0
Dixie	2	34.3	2	54.3	0	....
Duval	174	95.3	44	37.0	130	204.7
Escambia	30	52.1	12	28.0	18	122.4
Flagler	0	....	0	....	0	....
Franklin	1	15.2	0	....	1	45.5
Gadsden (Ex.)	11	40.7	3	27.3	8	50.0
State Hospital	15	362.0	8	298.1	7	479.5
Gilchrist	0	....	0	....	0	....
Glades	0	....	0	....	0	....
Gulf	0	....	0	....	0	....
Hamilton	4	40.4	1	16.9	3	75.0
Hardee	1	8.5	0	....	1	111.1
Hendry	1	26.3	0	....	1	125.0
Hernando	1	17.5	0	....	1	62.5
Highlands	4	34.5	2	24.1	2	60.6
Hillsboro	107	66.6	61	46.9	46	151.3
Holmes	3	19.9	3	21.0	0	....
Indian River	5	54.3	2	31.3	3	107.1
Jackson	18	49.0	7	30.3	11	80.9
Jefferson	3	22.1	0	....	3	31.3

BUREAU OF VITAL STATISTICS

DEATHS FROM TUBERCULOSIS (ALL FORMS) AND RATES PER 100,000 POPULATION, BY COLOR AND BY COUNTIES, FLORIDA, 1937—Continued

COUNTIES	TOTAL		WHITE		COLORED	
	Deaths	Rates	Deaths	Rates	Deaths	Rates
Lafayette	1	23.6	1	27.0	0	.....
Lake	20	66.4	9	41.9	11	127.9
Lee	6	35.7	1	7.4	5	151.5
Leon	16	57.6	5	44.2	11	66.7
Levy	4	30.5	4	51.3	0	.....
Liberty	2	51.9	1	36.5	1	89.8
Madison	2	11.3	0	.....	2	22.0
Manatee	9	38.8	3	17.6	6	96.8
Marion	13	41.8	7	43.2	6	40.3
Martin	2	37.7	1	28.6	1	55.6
Monroe	17	128.0	11	101.7	6	242.7
Nassau	1	10.9	0	.....	1	29.4
Okaloosa	4	32.3	3	26.1	1	111.1
Okeechobee	0	.....	0	.....	0	.....
Orange	30	48.6	14	29.5	16	111.9
Osceola	3	30.8	3	40.1	0	.....
Palm Beach	30	56.2	13	36.5	17	95.5
Pasco	6	52.6	2	20.8	4	222.2
Pinellas	29	44.3	22	42.6	7	50.7
Polk	46	53.4	21	31.0	25	135.9
Putnam	16	87.4	6	57.7	10	126.6
St. Johns	11	62.6	2	17.1	9	153.8
St. Lucie	2	20.2	1	16.4	1	26.3
Santa Rosa	5	31.1	4	28.2	1	52.6
Sarasota	14	97.9	5	47.2	9	243.2
Seminole	6	25.4	2	16.9	4	33.9
Sumter	1	10.0	0	.....	1	33.8
Suwannee	8	46.0	4	34.8	4	67.8
Taylor	8	72.1	1	13.6	7	187.9
Union	5	58.1	2	37.7	3	90.9
Volusia	21	39.0	10	27.4	11	63.6
Wakulla	0	.....	0	.....	0	.....
Walton	2	14.5	0	.....	2	90.4
Washington	0	.....	0	.....	0	.....

WATCH THIS MAP

It denotes the progress of County Health work in Florida.
Each white dot stands for a full-time county unit.



BUREAUS AND DIVISIONS AT JACKSONVILLE

Directors

Accounting	G. Wilson Baltzell
Dental Health	Lloyd N. Herlow, D.D.S.
District and County Health Work	A. B. McCroary, M.O.
Drug Inspection	M. H. Doss
Engineering	G. F. Calliett, C.E.
Epidemiology	Dan N. Cons, M.O.
Health Education	Elizabeth Behnenberger
Laboratories	J. N. Patterson, M.O.
Maternal and Child Health	F. V. Chappell, M.O.
Public Health Nursing	Ruth E. Mettlinger, R.N.
Tuberculosis	A. J. Logie, M.D.
Veneral Disease Control	L. C. Gonzalez, M.D. (Acting)
Vital Statistics	Edward M. L'Engle, M.D.

DIRECTORS FULL TIME COUNTY HEALTH UNITS

Alachua County	L. J. Graves, M.O.
Alford County	L. J. Graves, M.D.
Escambia County	A. L. Stebbins, M.D.
Jackson County	R. N. Joyner, M.D.
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Highland County	C. W. Pense, M.D. (Acting)
Orange County	W. P. Rice, M.D.
Lake County	Terry Bird, M.D.
Duval County	K. K. Waerling, M.D.

KEY WEST
(MONROE CO. HEALTH
UNIT)

MEDICAL OFFICERS

Dist. 1. Marianna	C. W. McDonald, M.D.
Dist. 2. Jacksonville	Jock Gailin, M.O.
Dist. 3. Doña	O. C. Wilt, M.D.
Dist. 4. Bartow	C. W. Pense, M.D.
Dist. 5. West Palm Beach	Leiford H. Dame, M.D.

MALARIA RESEARCH

Mark F. Boyd, M.D., Tallahassee	Rockefeller Foundation
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ENTOMOLOGY

W. V. King, Ph.D., Orlando	U. S. Bureau Entomology
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